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**A COMPARATIVE STUDY OF  
RELIABILITY AND VALIDITY OF EXAMINATIONS  
FOR THE B.Ed. DEGREE PROGRAMME OF BIDE  
THROUGH DISTANCE EDUCATION AND THE  
REGULAR B.Ed. DEGREE PROGRAMME OF  
TEACHERS' TRAINING COLLEGES**

A Thesis  
Presented to  
the Faculty of the Institute of Education  
and Research, The University of Dhaka



In Fulfillment of the Requirements for  
the Degree of Doctor of Philosophy in Education



By  
Saleha Khatun



**APPROVAL PAGE**

This Thesis Has Been Approved  
by  
The Examining Committee

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## ABSTRACT

Saleha Khatun, "A Comparative study of Reliability and Validity of Examinations for the B.Ed. Degree Programme of BIDE Through Distance Education and the Regular B.Ed. Degree Programme of Teachers' Training Colleges". Unpublished Doctor of Philosophy in Education Thesis, Institute of Education and Research, University of Dhaka, 1992.

### Statement of the Problem

In Bangladesh a regular B.Ed. degree programme has been in operation for quite a long time. This is a one year degree programme designed mostly for secondary school teachers. The course is conducted by ten Teachers' Training Colleges (TTC) located in different regions of the country. The degree is awarded by different Universities of the country. With their existing facilities ten Teachers' Training Colleges can provide training only to about 3,000 trainees yearly. But there is a great need for providing training to the large number of untrained graduate teachers who are working at present in different schools. Considering the situation the Bangladesh Institute of Distance Education (BIDE) has introduced a B.Ed. degree programme through distance education for working teachers in 1985. The minimum duration for completion of the degree is two years. The degree is awarded by Rajshahi University. The programme of BIDE is innovative in the sense that its learning technique and the evaluation of performance of students in the courses are different from those in regular B.Ed. degree programme. However, the two

B.Ed. degree programmes are essentially similar in the sense that the syllabuses for both the programmes are the same. Moreover, the teachers of ten Teachers' Training Colleges render advisement services in face-to-face situation for the off-campus students of BIDE according to a schedule. They also conduct examinations for these students.

B.Ed. degree programme of BIDE is the first degree programme through distance education in this country. Besides, the teaching learning strategy and evaluation system of the programme are different from those followed in the other programme. Therefore, it is quite natural to raise questions about the effectiveness of the new programme and its comparability with the regular B.Ed. degree programme conducted by TTCs. A comparative study of reliability and validity of the examinations of the two programmes can provide information regarding the effectiveness and comparability of the two B.Ed. degree programmes.

#### Purpose of the Study

The present study is concerned with comparing the examinations of BIDE with those of TTCs for their respective B.Ed. degree programmes in terms of reliability and validity of each examination as an aspect of overall evaluation for both the degrees. The same syllabus, teaching learning strategies and evaluation procedures are followed by all the ten TTCs. Besides, the services of the teacher educators are transferable to any of



the TTCs. Therefore, for the present study Rajshahi Teachers' Training College is representing all the TTCs of the country. In this study an attempt has been made to test in the light of available evidence the following general hypotheses.

1. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE and those used for assessment of achievement of students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College are sufficiently reliable.

2. On the whole, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE tend to be of equal reliability as those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College.

3. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE and those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College tend to be sufficiently valid when content validity of all tests, predictive validity of all tests on theoretical aspect and construct validity of assessment of the practical aspect are taken into consideration.

4. On the whole, the examinations of BIDE for assessment of achievement of the B.Ed. degree students of the first batch and those used by Rajshahi Teachers' Training College for assessment of achievement of the students of 1987 possess equal predictive validity measured in terms of correlation between achievement in theoretical Subjects and those in practical teaching aspect, assuming practical teaching aspect of the programme as equivalent to future performance of a candidate in the teaching profession.

5. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE tend to possess content validity which is equal to content validity of those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College.

6. On the whole, the examinations of BIDE for assessment of achievement in practical teaching aspect of the B.Ed. degree students of the first batch and those used by Rajshahi Teachers' Training College for assessment of achievement in the same area of the students of 1987 possess equal construct validity.

In order to examine the above mentioned six general hypotheses 24 specific objectives regarding reliability and 43 specific objectives regarding validity have been tested.



### Need for the Study

Professional education of teachers is a pre-requisite for assuring a good system of education for the future generations. One method of assessing the effectiveness of any educational programme is to assess the extent of reliability and validity of the examinations held for awarding the degree. Although the regular B.Ed. degree programme being conducted by TTCs for a pretty long time and B.Ed. degree of BIDE has been in operation since 1985, no studies has yet been conducted to assess the effectiveness of B.Ed. degree programme of the country. The present study has been undertaken to assess the reliability and validity of the examinations conducted by BIDE and those by Rajshahi Teachers' Training College for their respective group of students who completed B.Ed. degree courses in 1987. On the basis of the findings of this study some recommendations could be made to improve the effectiveness and to maintain the equivalent standard of the two programmes.

### Method of Study

a. The reliability coefficients of the tests on each of the five compulsory Subjects, six elective Subjects, Practical Teaching and Total Assessment administered by BIDE and those administered by Rajshahi Teachers' Training College for their respective group of students have been determined by using an appropriate method (an approximation of the method of Rational Equivalence) and the significance of each of the reliability coefficients has been tested.

b. The significance of difference between reliability of the tests used by BIDE and those used by Rajshahi Teachers' Training College on the same Subject has been tested.

c. For both the B.Ed. degree programme under consideration the coefficient of correlation between each of the theoretical Subjects and Practical Teaching aspect have been computed. Thus taking practical Teaching aspect as a criterion each of the theoretical Subjects has been validated and the significance of each of the coefficients of correlation has been tested.

d. The significance of difference between the coefficients of correlation of the tests used by BIDE and those used by Rajshahi Teachers' Training College on the same Subject has been tested.

e. Assessment of the content/construct validity of each examination held for B.Ed. degree under the distance education programme and that for the B.Ed. degree programme conducted by Rajshahi Teachers' Training College has been done by experts. The distribution of ratings for each Subject has been analysed.

f. The significance of difference between the distribution of ratings for the tests used by BIDE and the tests used by Rajshahi Teachers' Training College on the same Subject has been tested.



### Samples of Study

Two samples of graduates have been drawn. Three hundred and seven graduates of the B.Ed. degree programme of BIDE who completed the course in 1987 and two hundred eighty three graduates of 1987 of the B.Ed. degree programme of Rajshahi Teachers' Training College. Fifty six experts have been drawn from the pool of teachers who are working at different Teachers' Training Colleges of the country.

### Findings

From the analysis of data it is found that the tests on all the Subject areas, i.e. five compulsory Subjects, six elective Subject, Practical Teaching aspect and Total Assessment of achievement administered by BIDE are sufficiently reliable. The test on educational evaluation and guidance, English and Total Assessment of Achievement administered by TTC are found to be sufficiently reliable but the tests on other remaining Subject areas are found to be not sufficiently reliable. Comparison between the reliability of the tests on the same Subject area given by BIDE and by TTC shows that only the tests on Educational Evaluation and Guidance, English and Geography are equally reliable. But for tests on other Subject areas results show higher reliability in favour of BIDE. It may be mentioned here that the reliability coefficients of the tests of BIDE fall between +0.80 and +0.98 and those of the tests of TTC fall between +0.63 and +0.95.

The results of the tests of significance regarding predictive validity show that all the tests used by BIDE and those used by TTC for the assessment of achievement of their respective group of students are sufficiently valid and there is no difference between the tests used by BIDE and by TTC on the same Subject in respect of predictive validity. It may be mentioned here that the validity coefficients of the tests of BIDE fall between +0.24 and +0.55 and those of the tests of TTC fall between +0.29 and +0.49.

The assessment of the experts for the content validity of the tests shows that the tests on all the Subjects administered by BIDE are of medium level of validity whereas in the case of tests used by TTC the tests on History of Education and Geography are of high level of content validity and tests on other subjects are of medium level of content validity. Comparison between the content validity of the tests given by BIDE and the tests given by TTC on the same Subject shows that tests on Educational Evaluation and Guidance, Education and National Development, Bangla, English and Science are equally valid. But tests on remaining three compulsory Subjects, namely principles of Education, Educational Psychology, History of Education and three special Subjects namely Mathematics, Geography and Social Science administered by TTC are found to possess higher content validity than those administered by BIDE.

The assessment of construct validity, made by the expert for the tests used by BIDE for Internal Assessment, Viva-Voce



examination, Total Assessment of achievement in Practical Teaching aspects are found to be of low level and that of test for Practice Teaching examination is found to be of medium level. Assessment of experts shows that the tests on all the three aspects of Practical Teaching, namely Internal Assessment, Viva-Voce examination, Practical Teaching examination and Total Assessment of achievement in Practical Teaching aspects used by TTC are of medium level. Comparison of construct validity shows that the tests administered by TTC possess higher construct validity than the tests administered by BIDE. •

### Recommendations

On the basis of the findings of this study the following recommendations have been made.

1. Measures should be taken by the authority of the Teachers' Training Colleges to make their tests more reliable. Introduction of objective type tests along with essay type tests according to the nature of the Subjects might be of some help in raising the reliability of their tests.

2. Authority of BIDE should take measures to enhance the content validity of their tests on theoretical Subjects. Introduction of some structured question in each of the terminal examinations may be of some help in this respect.

3. The tests for assessing the achievement of the students in Practical teaching aspects administered by BIDE need to be modified. Emphasis should be given on Practice Teaching and final examination in teaching should be done in real situation instead of a simulated one.

4. A continuous effort should be taken to conduct similar studies in order to improve the teacher education programme of the country.



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## CHAPTER 1

### INTRODUCTION

#### Statement of the Problem

Bangladesh Institute of Distance Education (BIDE) introduced a B.Ed. degree programme through distance education for working teachers in this country in 1985. The minimum duration for completion of the degree is two years. In this respect BIDE has been operating the degree programme under the academic jurisdiction of the University of Rajshahi<sup>1</sup>.

For admission in the first batch approximately 25,000 candidates applied but BIDE enrolled a total of only 3,211 students in the programme. Among them 2,366 students completed all requirements for the degree in 1987. The University of Rajshahi conferred this B.Ed. degree upon 2,366 students in 1987. In the subsequent years also there were huge rush for admission. But since the authorities of BIDE took the policy of admitting only 3,000 students per year and since their policy was to admit students on "first come first serve basis", a large number of candidates for admission could not be accommodated. In 1986 and 1987 approximately 23,000 and 29,000 candidates respectively applied for admission, but only 3,287 and 3,783 students respectively could be admitted. Candidates who satisfied only the

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1. Bachelor of Education Degree through Distance Education system, Ordinance dated 24.10.84 of Rajshahi University.

minimum qualification requirements and had sufficient teaching experience were admitted according to the aforementioned policy of BIDE. This indicates the popularity of and demand for the degree.

In 1985, a very small percentage of the graduate (holders of the first University Degree) teachers of school in Bangladesh had the B.Ed. degree or any formal training for teaching. This happened in spite of the fact that ten Teachers' training Colleges and the Institute of Education and Research (IER) have been functioning in the country for a pretty long time for the purpose of providing training to mostly secondary school teachers leading to B.Ed. or equivalent degrees of different Universities. These institutions with their existing facilities can admit about three thousand trainees for the degree per year. In consideration of the fact that these were about seventy thousand untrained graduate teachers currently in secondary schools of the country, there was a real need for introducing a system of teacher training which should ensure an efficient and speedy training programme leading to the B.Ed. degree of the University for those untrained teachers. The B.Ed. degree programme of BIDE was a natural response to this problem.

In 1985 BIDE started the B.Ed degree programme through distance education with the following objectives:

i) To carry on experimental programme for conducting course through distance education for 3,000 in-service secondary school teachers annually with an expectation of ultimate coverage for about 70,000 untrained teachers in the near future.

ii) To develop various distance education techniques, such as course materials, tutorial services, summer school system, student evaluation, etc. for executing the B.Ed. programme through distance education.

iii) To develop proper infrastructure both in BIDE and in ten TTCs for executing the programme.

The minimum duration for the B.Ed. degree programme of BIDE is two years, each year being split into two semesters. The academic year begins in July and ends in June each year. At the end of each semester the students are required to take semester final examinations at the respective centres located in the training colleges. The curriculum and the syllabus of the course are the same as those followed by the teachers' training colleges for the B.Ed. degree IER for the Dip-in-Edn programme. While the conventional B.Ed/Dip-in-Edn programme can be completed by a student in one academic year the B.Ed degree of BIDE takes at least two academic years for completion and while the former is basically designed as a pre-service training for intending teachers of mostly the secondary level, the later has been designed solely



as the in-service training programme for working teachers. In order to implement this training programme, BIDE developed a very elaborate and innovative system of instruction and evaluation of student performance. While all the students of the conventional B.Ed/Dip-in-Edn programme study as full time students at the institutions, the students enrolled in the B.Ed. degree programme of BIDE are allowed to continue in their teaching work.

In spite of the differences between the instructional and the evaluation programmes of the two systems, they are also similar to some extent. The two programmes are essentially similar in the sense that the curriculum and the syllabus for both are the same. Moreover, the teachers of Teachers' Training Colleges render advisement services in face-to-face situations for the off campus students under the distance education programme according to schedule. They also conduct the semester final and other examinations for those students of BIDE.

Since the B.Ed. degree programme of BIDE is an experimental programme of teacher education, it is natural to raise questions about the effectiveness of this innovative programme as such. The different aspects of the programme can be evaluated in a variety of ways in order to find appropriate answers to those questions. One of the major questions regarding the effectiveness of this experimental programme may be raised in respect of the innovative examination system of this programme.

### Purpose of the study

The present study is concerned with comparing the examinations for the B.Ed. degree programme of BIDE with those for the B.Ed. degree programme of the Teachers' Training Colleges in terms of reliability and validity of each examination. The same syllabus, teaching learning strategies and evaluation procedures are followed by all the ten Teachers Training Colleges of the country. Besides, the services of the teacher educators are transferable to any of the TTCs. Therefore, for the present study Rajshahi Teachers Training Colleges is representing all the ten TTCs of the country. Hence, in the study an attempt has been made to test in the light of available evidence the following general hypotheses.

### **General Hypotheses**

1. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE and those used for assessment of achievement of students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training Colleges are sufficiently reliable.

2. On the whole, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE tend to be of equal reliability as those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College.

3. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE and those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College tend to be sufficiently valid when content validity of all tests, predictive validity of all tests on theoretical aspect and construct validity of assessment of the practical aspect are taken into consideration.

4. On the whole, the examinations of BIDE for assessment of achievement of the B.Ed. degree students of the first batch and those used by Rajshahi Teachers' Training College for assessment of achievement of the students of 1987 possess equal predictive validity measured in terms of correlation between achievement in theoretical subjects and those in practical teaching aspect, assuming practical Teaching aspect of the programme as equivalent to future performance of a candidate in the teaching profession.

5. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE tend to possess content validity which is equal to content validity of those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College.



6. On the whole, the examinations of BIDE for assessment of achievement in practical teaching aspect of the B.Ed. degree students of the first batch and those used by Rajshahi Teachers' Training College for assessment of achievement in the same area of the students of 1987 possess equal construct validity.

In order to examine the aforementioned general hypotheses, the following specific hypotheses have been tested.

### Specific Hypotheses

General hypothesis (1): Reliability

1. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on principles of Education are sufficiently reliable.

2. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Educational Psychology are sufficiently reliable.

3. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on History of Education are sufficiently reliable.

4. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Educational Evaluation and Guidance are sufficiently reliable.

5. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Education and National Development are sufficiently reliable.

6. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Bangla are sufficiently reliable.

7. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on English are sufficiently reliable.

8. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Mathematics are sufficiently reliable.

9. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Geography are sufficiently reliable.

10. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on science are sufficiently reliable.

11. The tests used by BIDE and those by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Social science are sufficiently reliable.

12. The tests administered by BIDE and those administered by Rajshahi Teachers' Training College for the assessment of the students of their respective B.Ed. degree Programme on Practical Teaching aspect are sufficiently reliable.

13. The tests administered by BIDE and those administered by Rajshahi Teachers' Training College for assessment of total achievement of the students of their respective B.Ed. degree programme are sufficiently reliable.



General hypothesis (2): Reliability

1. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Principles of Education are equally reliable.

2. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Educational Psychology are their equally reliable.

3. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on History of Education are equally reliable.

4. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Educational Evaluation and Guidance are equally reliable.

5. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Education and National Development are equally reliable.

6. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Bangla are equally reliable.

7. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on English are equally reliable.

8. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Mathematics are equally reliable.

9. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Geography are equally reliable.

10. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Science are equally reliable.

11. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Social Science are equally reliable.

12. The tests administered by BIDE and those administered by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Practical Teaching aspect are equally reliable.

13. The tests administered by BIDE and those administered by the Rajshahi Teachers' Training College for assessment of total achievement of the students of their respective B.Ed. degree programme are equally reliable.

#### General hypothesis (3): Validity

1. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Principle of Education possess sufficiently content and predictive validity.

2. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Educational Psychology possess sufficient content and predictive validity.



3. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on History of Education posses sufficient content and predictive validity.

4. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Educational Evaluation and Guidance posses sufficient content and predictive validity.

5. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Education and National Development posses sufficient content and predictive validity.

6. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Bangla posses sufficient content and predictive validity.

7. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on English posses sufficient content and predictive validity.

8. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Mathematics possess sufficient content and predictive validity.

9. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the student of their respective B.Ed. degree on Geography possess sufficient content and predictive validity.

10. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Science possess sufficient content and predictive validity.

11. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Social Science possess sufficient content and predictive validity.

12. The tests used by BIDE for overall assessment of achievement of its first batch of students and those used by the Rajshahi Teachers' Training College for overall assessment of achievement of its students of 1987 possess sufficient content validity.

13. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for Viva-Voce Examinations of their respective group of students possess sufficient construct validity.

14. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for Internal Assessment of their respective group of students possess sufficient construct validity.

15. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of Practice Teaching of their respective group of students possess sufficient construct validity.

16. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of their respective group of students in Practical Teaching aspect of the programme possess sufficient construct validity.

General hypothesis (4) : Validity

1. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students their respective B.Ed. degree programme on Principle of Education possess equal predictive validity.



2. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Educational Psychology possess equal predictive validity.

3. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on History of Education possess equal predictive validity.

4. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Educational Evaluation and Guidance possess equal predictive validity.

5. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Education and National Development possess equal predictive validity.

6. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Bangla possess equal predictive validity.

7. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the student of their respective B.Ed. degree programme on English possess equal predictive validity.

8. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Mathematics possess equal predictive validity.

9. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Geography possess equal predictive validity.

10. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Science possess equal predictive validity.

11. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for the assessment of achievement of the students of their respective B.Ed. degree programme on Social Science possess equal predictive validity.

General hypothesis (5): Validity

1. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree on Principles of Education possess equal content validity.

2. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Educational Psychology possess equal content validity.

3. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on History of Education possess equal content validity.

4. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Educational Evaluation and Guidance possess equal content validity.

5. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Education and National Development possess equal content validity.



6. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Bangla possess equal content validity.

7. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on English possess equal content validity.

8. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of respective B.Ed. degree programme on Mathematics possess equal content validity.

9. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Geography possess equal content validity.

10. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed degree programme on Science possess equal content validity.

11. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of achievement of the students of their respective B.Ed. degree programme on Social Science possess equal content validity.

12. The tests used by BIDE for overall assessment of achievement of its first batch of students and those used by the Rajshahi Teachers' Training College for overall assessment of achievement of its students of 1987 possess equal content validity.

General hypothesis (6) : Validity

1. The tests by BIDE and those used by the Rajshahi Teachers' Training College for Viva-Voce Examinations of their respective group of students possess equal construct validity.

2. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for Internal Assessment of their respective group of students possess equal construct validity.

3. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of Practice Teaching possess equal construct validity.

4. The tests used by BIDE and those used by the Rajshahi Teachers' Training College for assessment of their respective group of student in Practical Teaching aspect of the programme possess equal construct validity.

### Need for the Study

Effective professional education is a prerequisite for assuring a good system of education for the future generation. In Bangladesh B.Ed. degree programme has been designed to provide professional education mostly to secondary school teachers. Before the introduction of the B.Ed. degree programme of Bangladesh Institute of Distance Education there was a common face-to-face education system for the degree, conducted by ten Teachers' Training Colleges (TTC) of the country. As B.Ed. degree programme of BIDE is the first degree programme under a system of distance education in Bangladesh, it is natural to raise questions about its effectiveness and its comparability with the B.Ed. degree programme of Teachers' Training Colleges.

Although the regular B.Ed. degree programme being conducted by ten Teachers' Training College for a pretty long time and B.Ed. degree programme of BIDE has been in operation since 1985, no studies has yet been conducted to assess the effectiveness of these two B.Ed. degree programmes of the country.

The examination system of a degree programme reflects to a large extent the effectiveness of the education provided to the graduates. A good examination system should be sufficiently reliable and valid. A comparative study of reliability and validity of examinations for B.Ed. degree programme of BIDE and TTC may provide us with the information about the effectiveness and



comparability of the two programmes. Besides, findings of the study might be of some help in improving professional education programme of teachers in general and B.Ed. degree programme in particular.

#### Delimitation of the study

The study was limited to the comparison between the reliability and the validity of the examinations for B.Ed. degree conducted by Bangladesh Institute of Distance Education and the Rajshahi Teachers' Training College for their respective group of students who completed the courses in 1987.

The reliability and validity of the tests on five Compulsory Subjects, six Elective Subjects (which are common in two programmes) and Practical Teaching aspect have been compared.

#### Sample for the Study

The scores obtained by 307 students of the first batch of BIDE who completed the B.Ed. course by 1987 and who appeared at the examinations for the degree conducted by BIDE at the Dhaka Teachers' Training College centre comprise the sample of scores in different subject areas for the purpose of the current study. The sample is purposive.

The scores obtained by 283 B.Ed. students of the Rajshahi Teachers' Training College who appeared at the examination in 1987,

comprise the sample of scores in different subject areas for the purpose of the study. In this case also the sample is purposive.

Two specialized questionnaires for assessment of validity of the two examinations and evaluation systems were administered to 56 experts. This sample of experts consisted of the teachers of the Training Colleges who were involved with both the Evaluation systems intimately. In fact, they conducted these examinations in their respective college centres and they were also involved in developing the course materials for B.Ed. degrees and tests for the purpose. Besides, they examined the scripts of the two examination systems.

## CHAPTER II

### METHODS OF STUDY

#### Introduction

The present study is concerned with a comparison of the examinations held for awarding B.Ed. degree through distance education and the conventional B.Ed. degree.

#### **Examination and Evaluation System of BIDE**

Bangladesh Institute of Distance Education has been operating the B.Ed. degree programme under the academic jurisdiction of the University of Rajshahi since 1985. This is a degree programme for working teachers. A candidate for the degree can complete the entire course programme within a minimum of two years, which is divided into four semesters. At the end of each semester a trainee is required to appear at the terminal examination held at the Training College Centre specified for such a candidate.

At each terminal examination the candidate for the B.Ed. degree through distance education has to take one test covering the theoretical part of each required Subject and 80 percent of the marks in each Subject are allotted to four such tests, which are entirely based on objective type test items. Twenty percent of the marks in each required subject are allotted to essay type tests, which are administered at the end of the third semester along with the objective type tests. This 20 percent marks also cover the



theoretical part of each Subject. At the end of the fourth semester practical examinations are held. While for the theoretical aspect of the required courses a total of 700 marks are allotted to five compulsory and two elective Subjects, each subject carrying 100 marks, for the practical aspect of the degree programme 300 marks are allotted with the following distribution: (i) Practice Teaching --100 marks, (ii) Viva-voce Examination --100 marks and (iii) Internal Assessment --100 marks.

Marking of objective tests is done by computer, answer scripts of essay tests are examined by Subject experts and the performance of the candidates in the practical aspect of the course is evaluated by a Board of Examiners.

A student has to obtain at least 35% marks to pass the written test on each Subject, but he has to obtain 40% marks in aggregate. To pass in practical examination one has to obtain at least 40% marks and he has to pass in all the three components separately. Marks obtained above 40% in the optional Subject (Educational Administration) are added to the total marks obtained by the student.

When a student passes in all the terminal examinations and all the practical examinations the University of Rajshahi award the B.Ed. degree on him. If a student secures 60% or above marks he gets First Class, if a student secures 50% or above but less than

60% marks he gets High Second Class and if a student secures 40% or above but less than 50% marks he gets Second Class.

### Examination and Evaluation System of TTC

For the B.Ed. degree course of Teachers' Training Colleges the examination system is as follows: One academic year is divided into three terms. At the end of each of the first two terms terminal examinations are held and at the end of the third term final examinations are held. Terminal and final examinations are mostly based on essay type tests. Out of 1000 marks, 700 marks are allotted for the theoretical aspect and 300 marks are allotted for the practical aspect of the course programme. 700 marks of theoretical aspect are allotted for five compulsory Subjects and two elective Subjects each Subject carrying 100 marks, 300 marks allotted for practical aspect of the degree course are distributed in three components: (i) Practice Teaching --150 marks, (ii) Viva-Voce Examination --50 marks and (iii) Internal Assessment --100 marks.

Two terminal examinations and assignment given to the student in a Subject cover 50% marks allotted for that particular Subject. Final examiners covers the remaining 50% marks. At the End of the third term Practice Teaching and Viva-voce Examinations are held.

Answer scripts of terminal examinations and Assignments are examined by respective Subject Teachers of the College, but each

answer scripts of the final examination is examined by two examiners, one internal and one external. The average of the marks given by the two examiners separately makes the final score of the student. Practical performance of a student is assessed by a Board of examiners comprising the internal and the external examiners. First Class, High Second Class and Second Class are determined in the same manner as mentioned in case of B.Ed. degree of BIDE.

It may be mentioned here that for both the B.Ed. degree programmes under consideration the curriculum and the syllabus are exactly the same. However, for the purposes of operating the B.Ed. degree programme, BIDE used an innovative system of developing instructional materials for this degree programme. BIDE produced textbooks in the form of collection of modules on each Subject area for each of the four semesters and delivered these instructional materials to the trainees in the beginning of each semester. These printed reading materials are supplemented by other audio-visual materials and occasional face-to-face teaching learning situations held in the Teachers' Training Colleges and the NIEAR according to scheme. These modules are innovative in the sense that they have been developed as self-learning and self-assessing textbooks and learning guide. The trainees of BIDE had also the opportunity of using the reading materials for the conventional teacher education programmes.



The students of the conventional B.Ed. degree course are required to use prescribed textbooks and reference materials available in their respective College library. They could also buy books and other printed materials pertaining to teacher education from the market and use them. It is now possible for the students of the Training Colleges as well to use the materials produced by BIDE for its B.Ed. degree programme.

### Objectives of the Study

In this study an attempt has been made to test in the light of available evidence the following general hypothesis:

1. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE and those used for assessment of achievement of students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College are sufficiently reliable.

2. On the whole, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE tend to be of equal reliability as those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College.

3. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of

BIDE and those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College tend to be sufficiently valid when content validity of all tests, predictive validity of all tests on theoretical aspect and construct validity of assessment of the practical aspect are taken into consideration.

4. On the whole, the examinations of BIDE for assessment of achievement of the B.Ed. degree students of the first batch and those used by Rajshahi Teachers' Training College for assessment of achievement of the students of 1987 possess equal predictive validity measure in terms of correlation between achievement in theoretical Subjects and those in Practical Teaching aspect, assuming Practical Teaching aspect of the programme as equivalent to future performance of a candidate in the teaching profession.

5. In general, the tests used for assessment of achievement of the first batch of students in the B.Ed. degree programme of BIDE tend to pass content validity which is equal to content validity of those used for assessment of achievement of the students of B.Ed. degree programme of 1987 of Rajshahi Teachers' Training College.

6. On the whole, the examinations of BIDE for assessment of achievement in Practical Teaching aspect of the B.Ed. degree students of the first batch and those used by Rajshahi Teachers'

College for assessment of achievement in the same area of the students of 1987 possess equal construct validity.

### Determination of Reliability

The reliability coefficients of the tests on each of the five compulsory Subjects, six elective Subjects, Practical Teaching and Total Assessment administered by BIDE for Assessment of achievement of its first batch of students and those administered by Rajshahi Teachers's Training College for assessment of achievement of its students of 1987 have been determined. It is necessary to mention here that only those elective Subjects have been taken under consideration which are common in both the programmes. To determine reliability coefficient of the tests "An approximation to the rational equivalence"<sup>1</sup> method has been applied using the following formula:

$$r = \frac{n\sigma^2 - M(n-M)}{(n-1)\sigma^2},$$

Where,  $r$  is the reliability coefficient,  
 $\sigma^2$  is the variance of the distribution of tests score,  
 $M$  is the adjusted mean,  
 $n$  is the distance between the highest score and the lowest score of the distribution,

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1. Guilford, J.P. Psychometric Methods Mcgraw-Hill Book Company, New York, 1954, P 381  
It may be noted here that in order to find the adjusted mean



the score of the distribution have been adjusted by the linear transformation  $X_i - C$ , where  $X_i$  is any score and  $C$  is the lower limit of the particular distribution. This has been done for the purpose of making the lower limit of the distribution coincident with the zero-point (i.e., the initial point) of the score distribution, in order to make the adjusted formula to conform to the foregone approximation formula.

The significance of each of the reliability coefficients has been tested using the following method:

$$H_0: \rho = +0.75$$

Alternative,  $\rho > +0.75$

Where,  $\rho$  is the population coefficient of reliability.  
 $+0.75$  is the hypothesized coefficient of reliability.

The reliability coefficients have been transformed into the corresponding statistic called  $z$  by application of the method known as Fisher's Logarithmic Transformation of  $r$ .<sup>1</sup> These statistic is defined as follows:

$$Z_r = \frac{1}{2} \log_e \frac{1+r}{1-r}$$

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1. Blommers, P and Lindquist, E.F., Elementary Statistical Methods in Psychology and Education, Houghton Mifftin Co., The Riverside Press, Cambridge, 1960. PP.462-464.

In order to test the hypothesis the following test statistics has been used:

$$Z = \frac{Z_r - Z_r \rho}{\sigma_{Z_r}} \quad \text{Where, } \sigma_{Z_r} = \frac{1}{\sqrt{N-3}}$$

$r$  is the hypothesised coefficient of reliability and  $N$  is the number of students.

### Comparison of Reliability

One of the main purpose of this study is to conduct a comparison between the reliability of examination system of BIDE and that of TTC. For this reason the reliability coefficients have been transformed into the corresponding value of  $z$ .

In order to apply the method of testing hypothesis the following statistical procedure has been adopted for each Subject area:

$$H_0: \rho_1 - \rho_2 = 0$$

Alternatives,  $\rho_1 - \rho_2 < 0$  and  $\rho_1 - \rho_2 > 0$

Where,  $\rho_1$  and  $\rho_2$  are the reliability coefficients of the tests used by BIDE and by Rajshah Teachers' Training College respectively. the hypothesis has been tested using  $z$  as the test statistic, as defined below:

$$Z = \frac{Z_{r_1} - Z_{r_2}}{\sqrt{\frac{1}{N_1-3} + \frac{1}{N_2-3}}}$$

Where  $r_1$  and  $r_2$  are the observed reliability coefficients of the tests administered by BIDE and by TTC respectively,  $N_1$  and  $N_2$  are number of students of BIDE and TTC respectively. The same method has been repeated for five compulsory and six elective Subjects, Practical Teaching aspect and Total Assessment.

#### Determination of Predictive Validity

It has been assumed that the theoretical aspects of B.Ed. degree programme should have some positive influence on classroom teaching of the student-teacher. So to determine predictive validity of the tests used in examinations of the two systems of B.Ed. degree programmes under consideration, the results of each of the theoretical Subject areas and those of practical aspect of the programme have been correlated. The practical aspect included practice teaching, Viva-voce Examination and Internal assessment. For tests in five compulsory Subjects and six elective Subjects appropriate statistical hypotheses have been formulated and tested. It should be mentioned here that tests of only those elective Subjects have been considered which are common in the two systems of B.Ed. degree programme. Hence marks obtained by the students of both the programmes in the practical aspects of the B.Ed. degree programmes have been used as the criterion against which the tests used for assessment of achievement in the theoretical aspects of the B.Ed. degree programmes have been validated. Since the practical aspect of the evaluation is regarded as a component of achievement in the entire degree programme and since this



evaluation is done concurrently with the evaluation of the theoretical aspects of the programme, assessment of the practical aspect can reasonably be accepted as a criterion for determining predictive validity of the tests used for assessment of achievement in the programmes. In fact, Practice Teaching and other components of practical aspect of the programme are very much similar to actual teaching and related functions in schools although the former functions are conducted in a situation of closed supervision by the teachers of the Training colleges as well as to some extent by Headmasters and Assistant Headmasters of the schools where the trainees are required to do practice teaching. So assessment of practical aspect of the programmes can be equated with assessment of teacher effectiveness to some extent.

While pedagogical theories of the programmes provide new knowledge and understanding for effective teaching, the practical aspect of the degree programmes have been designed in such a manner as to observe under supervised practice, to what extent the trainees can apply those theories to improve their teaching functions.

Test results in each of the eleven Subject areas for both the groups of B.Ed. students have been correlated with the criterion mentioned in the previous paragraph. The corresponding coefficients of correlations are treated as validity coefficients for each test under consideration. The significance of each validity coefficient has been tested using the following method:

$$H_0: \rho = 0$$

Alternative,  $\rho > 0$  and  $\rho < 0$

Where  $\rho$  is the population coefficient of correlation between the variables.

In order to test this hypothesis the following test statistic has been used:

$$t = \frac{r\sqrt{N-2}}{\sqrt{1-r^2}}, \quad df = N-2$$

Where  $r$  is the observed validity coefficient (coefficient of correlation between test results and the criterion),  $N$  is the number of trainees drawn as samples and  $df$  means degrees of freedom of the value of test statistic  $t$ . The hypothesis of existence of no relationship between the test results and the criterion has been rejected and the alternative has been accepted provisionally in the cases in which the value of  $t$  corresponding to a particular value of  $r$  is found significant at the chosen level. In other cases the hypothesis as stated has been retained. This practice has been repeated in each of the eleven cases (Subject areas) and for each of the two B.Ed. degree programmes.

#### Comparison of Predictive Validity

The most important part of the current study is to conduct a comparison between the two systems of Examination. One aspect of this comparison consists in testing hypotheses involving significance of difference between the validity coefficients of the

test used to assess achievement in a particular Subject area by BIDE for its students and by Rajshahi Teachers' Training college for its students. For this purpose the validity coefficients have been transformed into the corresponding statistic  $z$ .

In order to precisely apply the method of testing hypotheses as mentioned in the previous paragraph, the following statistical procedure has been adopted for each Subject are:

$$H_0: \rho_1 - \rho_2 = 0,$$

$$\text{Alternative, } \rho_1 - \rho_2 < 0 \quad \text{and} \quad \rho_1 - \rho_2 > 0,$$

Where  $\rho_1$  and  $\rho_2$  are the validity coefficients of the tests used by BIDE and Rajshahi Teachers' Training College respectively for assessment of achievement of their respective B.Ed. students in a particular Subject area. This method has been repeated in the cases of all eleven Subject areas for the two B.Ed. degree programmes under consideration. The hypothesis has been tested using  $z$  as the test statistic, as defined below:

$$z = \frac{z_{r_1} - z_{r_2}}{\sqrt{\frac{1}{N_1-3} + \frac{1}{N_2-3}}}$$

Where,  $r_1$  and  $r_2$  are the observed validity coefficients for tests given by BIDE and TTC respectively,  $N_1$  and  $N_2$  are number of students of BIDE and TTC respectively.





### Determination of Content Validity

Experts consisting of selected teachers of the Teachers' Training Colleges who were involved in preparing and conducting the examinations for both the programmes were asked to assess the content validity of different aspects of the examination and evaluation system of both the programmes. In order to accomplish this two questionnaires, one for BIDE and the other for TTC were administered to the experts. This assessment has been analysed in order to determine the extent of validity of each test on each comparable Subject area of both the programmes. The instruments contained a four-point rating scale for assessment of content validity. Each content validity has been shown in terms of its distribution including inference based upon the mean, standard deviation and mode of the distribution.

### Comparison of Content Validity

A comparison between the content validity of tests used by BIDE and those used by TTC has been made by testing the significance of the mean difference of the ratings, applying the following statistical method:

$$H_0: \mu_1 - \mu_2 = 0,$$

Alternatives,  $\mu_1 - \mu_2 > 0$  and  $\mu_1 - \mu_2 < 0,$

Where  $\mu_1$  and  $\mu_2$  are the populations means of ratings for BIDE and TTC respectively.

The mean difference has been tested for significance by applying the following t test at the 5% level:

$$t(df = n_1 + n_2 - 2) = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2} \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} ,$$

Where,  $\bar{X}_1$  and  $\bar{X}_2$  are mean ratings for BIDE and TTC respectively,  $n_1$  and  $n_2$  are number of experts assessing the programmes of BIDE and TTC respectively,  $s_1$  and  $s_2$  are variances of the ratings for BIDE and TTC respectively.

The experts also made a general assessment of the difference between the extent of content validity of the two assessment systems. The data have been presented in terms of frequency and percentage distribution, showing a comparison between the two systems of evaluation.

#### Determination and Comparison of Construct Validity

The analysis of the results followed for content validity has been exactly repeated in the case of construct validity of the Practical Teaching aspects of the two degree programmes.

The instruments for assessment of content validity and construct validity are presented in Appendixes G and H.

### Data Processing

Processing of available data was done by computer service of a private firm. According to the instructions given by the researcher the experts of the computer firm prepared the relevant programmes and got the data processed by the computer. From the output of the computer relevant results were used for the analysis of the findings.

### Choice of Level of Significance

The choice of the level of significance was made arbitrarily. The most commonly used 5% level was chosen for testing the hypotheses in this study.



## CHAPTER III

### ANALYSIS AND PRESENTATION OF DATA ON RELIABILITY COEFFICIENTS OF TESTS GIVEN BY BIDE AND BY TTC AND THEIR COMPARISON

#### Introduction

Reliability Coefficients of the tests administered by BIDE and those by TTC to their respective group of students have been subjected to test of significance of the hypothesis that  $\rho$  (rho) is equal to +0.75, against the alternative that  $\rho$  is greater than +0.75 at the 5% level. The findings have been presented subjectwise in relevant tables.

Again the reliability coefficient of the test given by BIDE and that given by TTC on the same subject have been compared by testing the hypothesis that the difference between the corresponding population correlation coefficients  $\rho$  (rho) is equal to zero, against the alternative that they are unequal at the 5% level. This has been done for each Subject and the findings have been presented in relevant tables furnished in this Chapter.

#### Principles of Education

Data on reliability coefficients of tests on Principles of Education (Total Assessment) of BIDE and of TTC have been presented in Table 1.

Table 1

Data on Reliability Coefficients of Tests on Principles of Education (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.82	307	+3.21
TTC	+0.70	203	-1.77

The reliability coefficient of the tests on Principles of Education (Total Assessment) given by BIDE is found to be +0.82. The corresponding value of z is +3.21, which is significant at the 5% level. Hence it may be concluded that the tests used by BIDE are sufficiently reliable. The reliability coefficient of the tests on the same Subject (Total Assessment) given by TTC to its group of students is found to be +0.70, the corresponding value of z being -1.77 is not significant. It therefore appears that the reliability coefficient is close to the hypothesized value but it is lower than the value.

Data on comparison of reliability coefficients of tests on Principles of Education (Total Assessment) of BIDE and of TTC have been furnished in the Table 2.

Table 2

Data on Comparison of Reliability Coefficients of Tests on Principles of Education (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.82	307	-	-
TTC	+0.70	283	-	-
Difference	-	-	+0.2895	+3.50

The difference between the reliability coefficients of the tests given by BIDE and those given by TTC has been found to be significant at the 5% level, the resulting value of z being +3.50. It may therefore be concluded that the reliability coefficient of the tests on Principle of Education (Total Assessment) administered by BIDE to its group of students is higher than that of the tests given by TTC to its corresponding group of students.

### Educational Psychology

Data on reliability coefficients of tests on Educational Psychology (Total Assessment) of BIDE and of TTC have been presented in Table 3.



Table 3

Data on Reliability Coefficients of Tests on Educational Psychology (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.88	307	+7.02
TTC	+0.65	283	-3.31

The reliability coefficient of the tests on Educational Psychology (Total Assessment) used by BIDE is found to be +0.88. The Corresponding value of z is +7.02 which is significant at the 5% level. Therefore, it may be concluded that the tests given by BIDE are sufficiently reliable. The reliability coefficient of the tests on Educational Psychology (Total Assessment) given by TTC to its group of students is found to be +0.65. The corresponding z value is -3.31, which is not significant at the 5% level. The reliability coefficient is much lower than the hypothesized value.

Data on comparison of reliability coefficients of Tests on Educational Psychology (Total Assessment) of BIDE and of TTC have been given in Table 4.

Table 4

Data on Comparison of Reliability Coefficients of Tests on Educational Psychology (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.88	307	-	-
TTC	+0.65	283	-	-
Difference	-	-	+0.6005	+7.25

The difference between the reliability coefficients of the tests (Total Assessment) given by BIDE and those given by the TTC to their respective group of students on Educational Psychology has been found to be significant at the 5% level, the resulting value of z being +7.25. Therefore, it may be concluded that the reliability coefficient of the tests (Total Assessment) given by BIDE to its group of students is higher than the reliability coefficient of the tests given by TTC to its corresponding group of students.

#### History of Education

Data on reliability coefficients of History of Education (Total Assessment) of BIDE and of TTC have been furnished in Table 5.

Table 5

Data on Reliability Coefficients of Tests on History of Education (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.82	307	+3.21
TTC	+0.63	283	-3.87

The reliability coefficient of the tests on History of Education (Total Assessment) given by BIDE to its group of students is found to be +0.82. The corresponding value of z is +3.21, which is significant at 5% level. Hence it may be concluded that the tests used by BIDE are reliable enough. The reliability coefficient of the tests (Total Assessment) on the same Subject used by TTC for its group of students found to be +0.63. The corresponding value of z being -3.87 is not significant at the 5% level. It appears that this reliability coefficient is much lower than the hypothesized value.

Data on comparison of reliability coefficients of tests on History of Education (Total Assessment) of BIDE and of TTC have been given in Table 6.



Table 6

Data on comparison of Reliability Coefficients of Tests on History of Education (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.82	307	—	—
TTC	+0.63	283	—	—
Difference	—	—	+0.4154	+5.02

The difference between the reliability coefficients of the tests given by BIDE and those given by TTC has been found to be significant at the 5% level, the resulting value of z being +5.02.

It may therefore be concluded that the reliability coefficient of the tests (Total Assessment) on History of Education used by BIDE for its group of students are much higher than the reliability coefficient of the tests (Total Assessment) on the same Subject used by TTC for its corresponding group of students.

#### Educational Evaluation and Guidance

Data on reliability coefficients of the tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC have been presented in Table 7.

Table 7

Data on Reliability Coefficients of Tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.84	307	+4.33
TTC	+0.86	283	+5.36

The reliability coefficient of the tests on Educational Evaluation and Guidance (Total Assessment) used by BIDE is found to be +0.84. The corresponding value of z is +4.33, which is significant at the 5% level. Hence it may be concluded that the reliability coefficient of the tests on Educational Evaluation and Guidance given by BIDE to its group of students are sufficiently high. The reliability coefficient of the tests (Total Assessment) on the same Subject given by TTC to its group of students is found to be +0.86. The corresponding value of z being +5.36, is significant at the 5% level. Therefore, it may be concluded that the reliability coefficient of the tests on Educational Evaluation and Guidance used by TTC for its group of students is also sufficiently high.

Data on comparison of reliability coefficients of tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC have been given in Table 8.

Table 8

Data on Comparison of Reliability Coefficients of Tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.84	307	-	-
TTC	+0.86	283	-	-
Difference	-	-	-0.0722	-0.87

The difference between the reliability coefficients of the tests given by BIDE and those given by TTC to their respective group of students on Educational Evaluation and Guidance has been found to be not significant at the 5% level, the resulting value of z being -0.87. Hence it may be concluded that the reliability coefficient of the tests (Total Assessment) given by BIDE to its group of students and the reliability coefficient of the tests (Total Assessment) on the same Subject given by TTC to its corresponding group of students are almost equal.

#### Education and National Development

Data on reliability coefficients of tests on Education and National Development (Total Assessment) of BIDE and of TTC have been furnished in Table 9.



Table 9

Data on Reliability Coefficients of Tests on Education and National Development (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.80	307	+2.19
TTC	+0.64	283	-3.59

The reliability coefficient of the tests on Education and National Development (Total Assessment) given by BIDE to its group of students is found to be +0.80. The corresponding value of z is +2.19, which is significant at the 5% level. So it may be concluded that the tests used by BIDE are sufficiently reliable. The reliability coefficient of the tests on the same Subject (Total Assessment) given by TTC to its group of students is found to be +0.64. The corresponding value of z is -3.59, which is not significant at the 5% level. It appears that the reliability coefficient of the tests used by TTC are quite lower than the hypothesized value.

Data on comparison of reliability coefficients of tests on Education and National Development (Total Assessment) of BIDE and of TTC have been presented in Table 10.

Table 10

Data on Comparison of Reliability Coefficients of Tests on Education and National Development (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.80	307	-	-
TTC	+0.64	283	-	-
Difference	-	-	+0.3404	+4.11

The difference between the reliability coefficients of the tests given by BIDE and those given by TTC has been found to be significant at the 5% level, the resulting value of z being +4.11. It may therefore be concluded that the reliability coefficient of the tests on Education and National Development (Total Assessment) used by BIDE is higher than the reliability coefficient of the tests on the same Subject (Total Assessment) used by TTC.

### Bangla

Data on reliability coefficients of tests on Bangla (Total Assessment) of BIDE and of TTC have been presented in Table 11.

Table 11

Data on Reliability Coefficients of Tests on Bangla (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.86	124	+3.52
TTC	+0.70	134	-1.21

The reliability coefficient of the tests on Bangla (Total Assessment) given by BIDE to its group of students is found to be +0.86. The corresponding value of z is +3.52, which is significant at the 5% level. Hence it may be concluded that the reliability coefficient of the tests on Bangla administered by BIDE is sufficiently high. The reliability coefficient of the tests on Bangla (Total Assessment) given by TTC to its corresponding group of students is found to be +0.70, the z value being -1.21 which is not significant. This reliability coefficient is close to the hypothesized value but it is lower than that value.

Data on comparison of reliability coefficients of tests on Bangla (Total Assessment) of BIDE and of TTC have been given in Table 12.



Table 12

Data on Comparison of Reliability Coefficients of Tests on Bangla (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.86	124	-	-
TTC	+0.70	134	-	-
Difference	-	-	+0.4260	+3.38

The difference between the reliability coefficients of the Tests administered by BIDE and the tests administered by TTC on Bangla (Total Assessment) is found to be significant at the 5% level, the resulting value of z being +3.38. Hence it may be concluded that the reliability coefficient of the Tests on Bangla given by BIDE to its group of students is higher than the reliability coefficient of the tests (Total Assessment) on the same Subject given by TTC to its group of students.

### English

Data on reliability coefficients of tests on English (Total Assessment) of BIDE and of TTC have been given in Table 13.

Table 13

Data on Reliability Coefficients of Tests on English (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.92	50	+4.22
TTC	+0.90	22	+2.29

The reliability coefficient of the tests on English (Total Assessment) used by BIDE for its group of students is found to be +0.92. The corresponding value of z is +4.22, which is significant at the 5% level. The reliability coefficient of the Tests on English (Total Assessment) used by TTC for its group of students is found to be +0.90. The corresponding value of z is +2.29, which is significant at the 5% level. It may therefore be concluded that the reliability coefficient of the tests given by BIDE to its students as well as the reliability coefficient of the tests given by TTC to its students are sufficiently high.

Data on comparison of reliability coefficients of tests on English (Total Assessment) of BIDE and of TTC have been presented in Table 14.

Table 14

Data on Comparison of Reliability Coefficients of Tests on English (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.92	50	-	-
TTC	+0.90	22	-	-
Difference	-	-	+0.116807	+0.43

The difference between the reliability coefficients of the tests administered by BIDE and those administered by TTC on English (Total Assessment) is found to be not significant at the 5% level, the resulting value of z being +0.43. Therefore, it may be concluded that there is no difference between reliability coefficient of the tests given by BIDE on English to its group of students and the reliability coefficient of the tests given by TTC on the same Subject to its group of students.

#### Mathematics

Data on reliability coefficients of tests on Mathematics (Total Assessment) of BIDE and of TTC have been furnished in Table 15.



Table 15

Data on Reliability Coefficients of Tests on Mathematics  
(Total Assessment) of BIDE of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.88	98	+3.93
TTC	+0.73	116	-0.47

The reliability coefficient of the tests on Mathematics (Total Assessment) given by BIDE to its group of students is found to be +0.88. The corresponding value of  $z$  is +3.93 which is significant at the 5% level. The reliability coefficient of the tests on Mathematics (Total Assessment) given by TTC to its group of students is found to be +0.73. The corresponding value of  $z$  is -0.47, which is not significant at the 5% level. Therefore, it may be concluded that the reliability coefficient of the tests of BIDE is sufficiently high, but that of the tests of TTC is lower than the hypothesized value.

Data on comparison of reliability coefficients of tests on Mathematics (Total Assessment) of BIDE and of TTC have been presented in Table 16.

Table 16

Data on Comparison of reliability coefficients of Tests on Mathematics (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.88	98	-	-
TTC	+0.73	116	-	-
Difference	-	-	+0.4470	+3.21

The difference between the reliability coefficients of the tests administered by BIDE and the tests administered by TTC on Mathematics (Total Assessment) is found to be significant at the 5% level, the resulting value of z being +3.21. It may therefore be concluded that the reliability coefficient of the tests on Mathematics given by BIDE to its group of students is higher than the reliability coefficient of the tests on Mathematics given by TTC to its group students.

### Geography

Data on reliability coefficients of tests on Geography (Total Assessment) of BIDE and of TTC have been presented in Table 17.

Table 17

Data on Reliability Coefficients of Tests on Geography (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.89	106	+4.46
TTC	+0.82	50	+1.26

The reliability coefficient of the tests on Geography (Total Assessment) given by BIDE to its group of students is found to be +0.89. The corresponding value of z is +4.46, which is significant at the 5% level. Hence it may be concluded that the reliability coefficient of the tests of BIDE is sufficiently high. The reliability coefficient of the tests on the same Subject (Total Assessment) given by TTC to its group of students is found to be +0.82. The corresponding value of z is +1.26, which is not significant at the 5% level. Therefore, it may be concluded that the reliability coefficient of the tests of TTC is very close to the hypothesized value but higher than that value.

Data on comparison of reliability coefficients of tests on Geography (Total Assessment) of BIDE and of TTC have been furnished in Table 18.



Table 18

Data on Comparison of Reliability Coefficients of Tests on Geography (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.89	106	-	-
TTC	+0.82	50	-	-
Difference	-	-	+0.265108	+1.51

The difference between the reliability coefficients of the tests given by BIDE and those given by TTC to their respective ground of students has been found not significant at the 5% level, the resulting value of z being +1.51. Hence it may be concluded that the reliability coefficient of the tests on Geography (Total Assessment) used by BIDE is not higher than the reliability coefficient of the tests used by TTC.

### Science

Data on reliability coefficients of tests on Science (Total Assessment) of BIDE and TTC have been given in Table 19.

Table 19

Data on Reliability Coefficients of Tests on Science (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.88	88	+3.71
TTC	+0.68	115	-1.52

The reliability coefficient of the tests on Science (Total Assessment) given by BIDE to its group of students is found to be +0.88. The corresponding value of z is +3.71, which is significant at the 5% level. Hence it may be concluded that the reliability coefficient of the tests on Science administered by BIDE are sufficiently high. The reliability coefficient of the tests on the same Subject (Total Assessment) given by TTC to its group of students is found to be +0.68. The corresponding value of z is -1.52, which is not significant at the 5% level. Therefore, it may be concluded that the reliability coefficient of the tests is close to the hypothesized value but lower than that value.

Data on comparison of reliability coefficients of tests on Science (Total Assessment) of BIDE and of TTC have been presented in Table 20.

Table 20

Data on Comparison of Reliability Coefficients of Tests on Science (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.88	88	-	-
TTC	+0.68	115	-	-
Difference	-	-	+0.5467	+3.80

The difference between the reliability coefficients of the tests given by BIDE to its group of students and of the tests given by TTC to its group of students on Science (Total Assessment) is found to be significant at the 5% level, the resulting value of z being +3.80. Hence it may be concluded that the reliability coefficient of the tests on Science used by BIDE is higher than the reliability coefficient of the tests on the same Subject used by TTC.

### Social Science

Data on reliability coefficients of tests on Social Science (Total Assessment) of BIDE and of TTC have been presented in Table 21.



Table 21

Data on Reliability Coefficients of Tests on Social Science  
(Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.85	148	+3.41
TTC	+0.71	100	-0.84

The reliability coefficient of the tests on Social Science (Total Assessment) administered by BIDE is found to be +0.85. The corresponding value of z is +3.41, which is significant at the 5% level. Therefore, it may be concluded that the reliability coefficient of the tests given by BIDE to its group of students is sufficiently high. The reliability coefficient of the tests on Social Science (Total Assessment) administered by TTC is found to be +0.71. The corresponding value of z is -0.84, which is not significant at the 5% level. Hence it may be concluded that the reliability coefficient of the tests given by TTC is close to the hypothesized value but lower than that value.

Data on comparison of reliability coefficients of tests on Social Science (Total Assessment) of BIDE and of TTC have been furnished in Table 22.

Table 22

Data on Comparison of Reliability Coefficients of Tests on Social Science (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.85	148	-	-
TTC	+0.71	100	-	-
Difference	-	-	+0.3690	+2.81

The difference between the reliability coefficients of the tests given by BIDE to its group of students and the tests given by TTC to its group of students on Social Science (Total Assessment) is found to be significant at the 5% level, the resulting value of z being +2.81. Hence it may be concluded that the reliability coefficient of the tests administered by BIDE is higher than the reliability coefficient of the tests administered by TTC.

#### Practical Teaching Aspect

Data on reliability coefficients of tests on practical Teaching Aspect (Total Assessment) of BIDE and of TTC have been furnished in Table 23.

Table 23

Data on Reliability Coefficients of Tests on practical Teaching Aspect (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	z
BIDE	+0.91	307	+9.67
TTC	+0.76	283	+0.39

The reliability coefficient of the tests on Practical Teaching Aspect (Total Assessment) given by BIDE is found to be +0.91. The corresponding value of z is +9.67 which is significant at the 5% level. Hence it may be concluded that the tests used by BIDE are sufficiently reliable. The reliability coefficient of the tests on Practical Teaching Aspect (Total Assessment) given by TTC is found to be +0.76, the corresponding value of z being +0.39 which is not significant. It therefore appears that this reliability coefficient is very close to the hypothesized value.

Data on comparison of reliability coefficients of tests on Practical Teaching Aspect (Total Assessment) of BIDE and of TTC have been presented in Table 24.



Table 24

Data on Comparison of Reliability Coefficients of Tests on Practical Teaching aspect (Total Assessment) of BIDE and of TTC

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.91	307	-	-
TTC	+0.76	283	-	-
Difference	-	-	+0.5318	+6.41

The difference between the reliability coefficients of the tests given by BIDE and that given by TTC has been found to be significant at the 5% level, the resulting value of z being +6.41. It may therefore be concluded that the reliability coefficient of the tests on Practical Teaching Aspect (Total Assessment) used by BIDE for its group of students is higher than the reliability coefficient of the tests used by TTC for its group of students.

#### Total Assessment

Data on Reliability Coefficients of tests used by BIDE and those used by TTC for Total Assessment have been presented in Table 25.

Table 25

Data on Reliability Coefficients of Tests used by BIDE and by  
TTC for Total Assessment

Institution	Reliability Coefficient	N	z
BIDE	+0.98	307	+23.10
TTC	+0.95	283	+14.37

The reliability coefficient of the tests used by BIDE for Total Assessment of its students is found to be +0.98. The corresponding value of z is +23.10 which is significant at the 5% level. Therefore, it may be concluded that the tests used by BIDE are sufficiently reliable. The reliability coefficient of the tests used by TTC for Total Assessment of the students is found to be +0.95. The corresponding value of z is +14.37 which is significant at the chosen level. Hence it may be concluded that the tests used by TTC are also reliable enough.

Data on comparison of reliability coefficients of tests used by BIDE and those used by TTC for Total Assessment of their respective group of student have been given in Table 26.

Table 26

Data on Comparison of Reliability Coefficients of Tests used by BIDE and by TTC for Total Assessment

Institution	Reliability Coefficient	N	Difference between Transformed z-values	z
BIDE	+0.98	307	-	-
TTC	+0.95	283	-	-
Difference	-	-	+0.4658	+5.62

The difference between the reliability coefficients of the tests administered by BIDE and those administered by TTC has been found to be significant at the 5% level, the resulting value of z being +5.62. It may therefore be concluded that the reliability coefficient of the tests used by BIDE for Total Assessment of its group of students is higher than the reliability coefficient of the tests used by TTC for Total Assessment of its corresponding group of students.



## CHAPTER IV

### ANALYSIS AND PRESENTATION OF DATA ON VALIDITY COEFFICIENTS OF TESTS GIVEN BY BIDE AND TTC AND THEIR COMPARISON

#### INTRODUCTION

Validity coefficients of the tests administered by BIDE and those by TTC to their respective group of students have been subjected to test of significance of the hypothesis that  $\rho$  (rho) is equal to zero, against the alternative that is greater than zero, at the 5% level. The findings have been presented subjectwise in relevant tables.

Again the validity coefficients of the test given by BIDE and those given by TTC on the same subject have been compared by testing the hypothesis that the difference between the corresponding population correlation coefficients  $\rho$  (rho) is equal to zero against the alternative that they are unequal at the 5% level. This has been done for each subject and the findings have been presented in relevant tables furnished in the Chapter.

### Principles of Education

Data on validity coefficient of tests on Principles of Education (Total Assessment) of BIDE and of TTC have been presented in table 27.

Table 27

Data on Validity Coefficients of Tests on Principles of Education (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.37	305	+6.96
TTC	+0.40	281	+7.32

The validity coefficient of the tests on Principles of Education (Total Assessment) used by BIDE is found to be +0.37. The corresponding value of t is +6.96 with 305 degrees of freedom. This value of t is significant at the 5% level. Therefore, it may be concluded that the tests given by BIDE are valid. The validity coefficient of the tests on Principles of Education (Total Assessment) given by TTC to its respective group of students is found to be +0.40. The corresponding t value is +7.32 with 281 degrees of freedom. This value of t is also significant at the chosen level. The validity coefficient is therefore good enough for the purpose.

Data on comparison of validity coefficients of tests on Principles of Education (Total Assessment) of BIDE and of TTC have been furnished in Table 28.

Table 28

Data on Comparison of Validity Coefficients of Tests on Principles of Education (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.37	307	--	--
TTC	+0.40	283	--	--
Difference	--	--	-0.0352	-0.43

The difference between the validity coefficients of the tests given by BIDE and by TTC to their respective group of students on Principles of Education has been found to be non-significant at the chosen level, the resulting value of z being -0.43. Therefore, it may be concluded that the tests given by BIDE and TTC to their respective group of students are almost equally valid.



### Educational psychology

Data on validity coefficients of tests on Educational Psychology (Total Assessment) of BIDE and of TTC have been furnished in Table 29.

Table 29

Data on Validity Coefficients of Tests on Educational Psychology (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.40	305	+7.62
TTC	+0.49	281	+9.42

The validity coefficient of the tests on Educational Psychology (Total Assessment) given by BIDE is found to be +0.40. The corresponding value of  $t$  is +7.62 with 305 degrees of freedom. This value of  $t$  is significant at the 5% level. Hence it may be concluded that the tests given by BIDE are valid. The validity coefficient of the tests on Educational Psychology (Total Assessment) used by TTC to its group of students is found to be +0.49. The corresponding value of  $t$  is +9.42 with 281 degrees of freedom. This value of  $t$  is also significant at 5% level. Therefore, it may be concluded that the validity coefficient of the tests given by TTC is high enough for the purpose.

Data on comparison of validity coefficients of tests on Educational Psychology (Total Assessment) of BIDE and of TTC have been presented in Table 30.

Table 30

Data on Comparison of Validity Coefficients of Tests on Educational Psychology (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.40	307	--	--
TTC	+0.49	283	--	--
Difference	--	--	-0.1124	-1.36

The difference between the validity coefficients of the tests used by BIDE and by TTC to their respective group of students on Educational Psychology has been found to be non-significant at the chosen level, the resulting value of z being -1.36. Hence it may be concluded that the tests used by BIDE and the tests used by TTC are nearly equally valid.

## History of Education

Data on validity coefficients of tests on History of Education (Total Assessment) of BIDE and of TTC have been furnished in Table 31.

Table 31

Data on Validity Coefficients of Tests on History of Education (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.32	305	+5.90
TTC	+0.31	281	+5.47

The validity coefficient of the tests on History Education (Total Assessment) given by BIDE to its group of students is found to be +0.32. The corresponding value of  $t$  is +5.90 with degrees of freedom 305. This value of  $t$  is significant at the 5% level. It may therefore be concluded that the tests used by BIDE are valid. The validity coefficient of the tests on the same Subject (Total Assessment) given by TTC to its group of students is found to be +0.31. The corresponding value of  $t$  is +5.47 with 281 degrees of freedom. In this case also the value of  $t$  is significant at the chosen level. Hence it may be concluded that the test used by TTC are valid.



Data on comparison of validity coefficients of test on History of Education (Total Assessment) of BIDE and of TTC have been presented in Table 32.

Table 32

Data on Comparison of Validity Coefficients of Tests on History of Education (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.32	307	--	--
TTC	+0.31	283	--	--
Difference	--	--	+0.0111	+0.13

The difference between the validity coefficients of the tests administered by BIDE and by TTC to their respective group of students on History of Education has been found to be non-significant at the 5% level, the resulting value of z being +0.13. Therefore, it may be concluded that the tests used by BIDE and by TTC are almost equally valid.

### Educational Evaluation and Guidance

Data on validity coefficients of tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC have been furnished in Table 33.

Table 33

Data on Validity Coefficients of Tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.41	305	+7.85
TTC	+0.33	281	+5.86

The validity coefficient of the tests on Educational Evaluation and Guidance (Total Assessment) given by BIDE to its group of students is found to be +0.41. The corresponding value of  $t$  is +7.85 with 305 degrees of freedom. This value of  $t$  is significant at the 5% level. Hence it may be concluded that the tests used by BIDE are valid. The validity coefficient of the tests given by TTC is found to be +0.33. The corresponding value of  $t$  is +5.86 with 281 degrees of freedom. The value of  $t$  is significant at the chosen level. Therefore, it may be concluded that the tests used by TTC are also valid.

Data on comparison of validity coefficients of tests on Educational Evaluation and Guidance (Total Assessment) of BIDE and of TTC have been presented in Table 34.

Table 34

Data on Comparison of Validity Coefficients of Tests on Educational Evaluation and Guidance (total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.41	307	--	--
TTC	+0.33	283	--	--
Difference	--	--	+0.0928	+1.12

The difference between the validity coefficients of the tests given by BIDE and by TTC to their respective group of students on Educational Evaluation and Guidance has been found to be non-significant at the 5% level, the resulting value of  $z$  being +1.12. It may therefore be concluded that the tests used by BIDE and those by TTC are fairly equally valid.



### Education and National Development

Data on validity coefficients of tests on Education and National Development (Total Assessment) of BIDE and of TTC have been presented in Table 35.

Table 35

Data on Validity Coefficients of Tests on Education and National Development (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.34	305	+6.71
TTC	+0.31	281	+5.47

The validity coefficient of the tests on Education and National Development (Test Assessment) administered by BIDE to its group of students is found to be +0.34. The corresponding value of t is +6.71 with 305 degrees of freedom. The value of t is significant at the chosen level. Therefore, it may be concluded that the tests used by BIDE are quite valid. The validity coefficient of the tests on same Subject administered by TTC to its group of students is found to be +0.31. The corresponding value of t is +5.47 with 281 degrees of freedom. Hence it may be concluded that the tests used by TTC are also valid enough.

Data on comparison of validity coefficients of tests on Education and National Development (Total Assessment) of BIDE and of TTC have been given in Table 36.

Table 36

Data on Comparison of Validity Coefficients of Tests on Education and National Development (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.34	307	--	--
TTC	+0.31	283	--	--
Difference	--	--	+0.0335	+0.41

The difference between the validity coefficients of the tests given by BIDE and by TTC to their respective group of students has been found to be non-significant at the 5% level, the resulting value of z being +0.41. Therefore, it may be concluded that the tests on Education and National Development administered by BIDE and by TTC are almost equally valid.

## Bangla

Data on validity coefficients of tests on Bangla (Total Assessment) of BIDE and of TTC have been furnished in Table 37.

Table 37

Data on Validity Coefficients of Tests on Bangla (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.55	122	+7.27
TTC	+0.39	132	+4.87

The validity coefficient of the tests on Bangla (Total Assessment) given by BIDE to its group of students is found to be +0.55. The corresponding value of t is +7.27 with 122 degrees of freedom. The value of t is significant at the 5% level. Hence it may be concluded that the test administered by BIDE are valid enough. The validity coefficient of the tests on same subject given TTC to its group of students is found to be +0.39. The corresponding value of t is +4.87 with 132 degrees of freedom. This value of t is also significant at the chosen level. Therefore, it may be concluded that the tests administered by TTC are valid.



Data on comparison of validity coefficients of tests on Bangla (Total Assessment) of BIDE and of TTC have been presented in Table 38.

Table 38

Data on Comparison of Validity Coefficients of Tests on Bangla (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.55	124	--	--
TTC	+0.39	134	--	--
Difference	--	--	+0.2066	+1.64

The difference between the validity coefficients of the test used by BIDE and those used by TTC to their respective group of students has been found to be non-significant at the 5% level, the resulting value of z being +1.64. It may therefore be concluded that the tests on Bangla given by BIDE and the tests given by TTC are equally valid.

## English

Data on validity coefficients of tests on English (Total Assessment) of BIDE and of TTC have been presented in Table 39.

Table 39

Data on Validity Coefficients of Tests on English (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.37	48	+2.76
TTC	+0.42	20	+2.07

The validity coefficient of the tests on English (Total Assessment) administered by BIDE is found to be +0.37. The corresponding value of t is +2.76 with 48 degrees of freedom. The value of t is significant at the 5% level. Therefore, it may be concluded that the test on English used by BIDE are valid. The validity coefficient of the tests on English (Total assessment) administered by TTC is found to be +0.42. The corresponding value of t is +2.07 with 20 degrees of freedom. This value of t is also significant at the chosen level. Hence it may be concluded that the tests on English administered by TTC are valid.

Data on comparison of validity coefficients of tests on English (Total Assessment) of BIDE and of TTC have been furnished in Table 40.

Table 40

Data on Comparison of Validity Coefficients of Tests on English (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.37	50	--	--
TTC	+0.42	22	--	--
Difference	--	--	-0.0593	-0.22

The difference between the validity coefficients of the test on English given by BIDE and by TTC to their respective group of students has been found to be non-significant at the chosen level, the resulting value of z being -0.22. It may therefore be concluded that the tests on English used by BIDE and the tests used by TTC are almost equally valid.



## Mathematics

Data on validity coefficients of tests on Mathematics (Total Assessment) of BIDE and of TTC have been furnished in Table 41.

Table 41

Data on Validity Coefficients of Tests on Mathematics (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.33	96	+3.43
TTC	+0.29	114	+3.24

The validity coefficient of the tests on Mathematics (Total Assessment) given by BIDE to its group of students is found to be +0.33. The corresponding value of  $t$  is +3.43 with 96 degrees of freedom. The value of  $t$  is found to be significant at the chosen level. It may therefore be concluded that the test on Mathematics used by BIDE are valid. The validity coefficient of the tests on Mathematics (Total assessment) given by TTC to its group of students is found to be +0.29. The corresponding value of  $t$  is +3.24 with 114 degrees of freedom. This value of  $t$  is also significant at the chosen level. Hence it may be concluded that the tests on Mathematics used by TTC are valid too.

Data on comparison of validity coefficients of tests on Mathematics (Total Assessment) of BIDE and of TTC have been presented in Table 42

Table 42

Data on Comparison of Validity Coefficients of Tests on Mathematics (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.33	98	--	--
TTC	+0.29	116	--	--
Difference	--	--	+0.0443	+0.32

The difference between the validity coefficients of the test on Mathematics (Total Assessment) administered by BIDE and by TTC is found to be non-significant at the 5% level, the corresponding value of z being +0.32. Hence it may be concluded that the tests used by BIDE and the tests used by TTC on Mathematics are fairly equally valid.

## Geography

Data on validity coefficients of tests on Geography (Total Assessment) of BIDE and of TTC have been given in Table 43.

Table 43

Data on Validity Coefficients of Tests on Geography (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.33	104	+3.57
TTC	+0.45	48	+3.49

The validity coefficient of the tests on Geography ( Total Assessment) administered by BIDE to be +0.33. The corresponding value of t is +3.57 with 104 degrees of freedom. The value of t is significant at the 5% level. Hence it may be concluded that the tests used by BIDE are valid. The validity coefficient of the tests on the same subject administered by TTC is found to be +0.45. The corresponding value of t is +3.49 with 48 degrees of freedom. This value of t is also found to be significant at the chosen level. Therefore, it may be concluded that the test on Geography used by TTC are also valid.



Data on comparison of validity coefficients of tests on Geography (Total Assessment) of BIDE and of TTC have been presented in Table 44.

Table 44

Data on Comparison of Validity Coefficients of Tests on Geography (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.33	106	--	--
TTC	+0.45	50	--	--
Difference	--	--	-0.1419	-0.81

The difference between the validity coefficients of the test on Geography (Total Assessment) administered by BIDE and by TTC to their respective group of students has been found to be non-significant at the 5% level, the resulting value of  $z$  being -0.81. It may be concluded that the tests used by BIDE and those used by TTC are nearly equally valid.

## Science

Data on validity coefficients of tests on Science (Total Assessment) of BIDE and of TTC have been presented in Table 45.

Table 45

Data on Validity Coefficients of Tests on Science (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.24	86	+2.29
TTC	+0.41	113	+4.78

The validity coefficient of the tests on Science ( Total Assessment) given by BIDE to its group of students is found be +0.24. The corresponding value of t is +2.29 with 86 degrees of freedom. The value of t is significant at the chosen level. Hence it may be concluded that the tests on Science administered by BIDE are valid. The validity coefficient of the tests on the same Subject administered by TTC to its group of students is found to be +0.41. The corresponding value of t is +4.78 with 113 degrees of freedom. This value of t is also significant at the chosen level. It may therefore be concluded that the tests given by TTC are valid enough.

Data on comparison of validity coefficients of tests on Science (Total Assessment) of BIDE and of TTC have been furnished in Table 46.

Table 46

Data on Comparison of Validity Coefficients of Tests on Science (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.24	88	--	--
TTC	+0.41	115	--	--
Difference	--	--	-0.1908	-1.33

The difference between the validity coefficients of the test on Science (Total Assessment) administered by BIDE and by TTC to their respective group of students is found to be non-significant at the 5% level, the corresponding value of z being -1.33. So it may be concluded that the tests on Science used by BIDE and those used by TTC are equally valid.



## Social Science

Data on validity coefficients of tests on Social Science (Total Assessment) of BIDE and of TTC have been furnished in Table 47.

Table 47

Data on Validity Coefficients of Tests on Social Science (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficient	df	t
BIDE	+0.38	146	+4.96
TTC	+0.31	98	+3.23

The validity coefficient of the tests on Social Science (Total Assessment) given by BIDE to its group of students is found to be +0.38. The corresponding value of t is +4.96 with 146 degrees of freedom. The value of t is significant at the chosen level. Therefore, it may be concluded that the tests administered by BIDE are quite valid. The validity coefficient of the tests on Social Science (Total Assessment) given by TTC to its group of students is found to be +0.31. The corresponding value of t is +3.23 with 98 degrees of freedom. In this case also t is significant at the chosen level. Hence it may be concluded that the tests administered by TTC are valid.

Data on comparison of validity coefficients of tests on Social Science (Total Assessment) of BIDE and of TTC have been presented in Table 48.

Table 48

Data on Comparison of Validity Coefficients of Tests on Social Science (Total Assessment) of BIDE and of TTC

Institution	Validity Coefficients	N	Difference Between Transformed z-values	z
BIDE	+0.38	148	--	--
TTC	+0.31	100	--	--
Difference	--	--	+0.0795	+0.61

The difference between the validity coefficients of the test on Social Science (Total Assessment) administered by BIDE and by TTC to their respective group of students has been found to be non-significant at the 5% level, the corresponding value of z being +0.61. Therefore, it may be concluded that the tests on Social Science given by BIDE and those given by TTC are almost equally valid.

### **Content/Construct Validity of Tests**

Content/Construct validity of Tests given by BIDE and by TTC to their respective group of students has been constituted in terms of ratings furnished by Subject Experts of the Training Colleges, who were involved in constructing and administering those tests to both the groups of students. The experts rated the tests on a four point scale. In this scale 4, 3, 2 and 1 indicate very high, medium, low and very low level of validity respectively. The findings have been presented and analysed Subject-wise in the following sections.

### **Compulsory Subjects**

Data on comparison of content validity of tests given by BIDE and by TTC on five compulsory Subjects have been furnished in Table 49.



Table 49

Data on Comparison of Content Validity of tests given by BIDE and by TTC to their respective Group of Students (Compulsory Subjects)

Subject	Sum of ratings indicating level of validity of all tests												t	df
	BIDE						TTC							
	4	3	2	1	Mean	SD	4	3	2	1	Mean	SD		
Principles of Edn.	4	9	6	2	2.71	0.88	9	13	1		3.35	0.56	-2.84	42
Edl. Psychology	2	14	2	2	2.80	0.75	6	14			3.30	0.46	-2.48	38
History of Edn.	8	10	4	1	3.09	0.83	15	9	1		3.56	0.57	-2.25	46
Edl. Eval. & Guide	5	13	7		2.92	0.69	9	15	5		3.14	0.68	-1.16	52
Edn. & N. Dev.	3	7	5	1	2.75	0.83	5	11	2		3.17	0.60	-1.65	32

### Principles of Education

The mean and the standard deviation of the distribution of ratings for the tests given by BIDE are found to be 2.71 and 0.88 respectively, the modal value of rating being 3. This indicates that the mean and the mode are quite close to each other, even though the variance of the distribution of ratings is high enough. It may therefore be concluded that the validity of the tests on Principles of Education give by BIDE is nearly of medium level, inspite of the heterogeneity of the ratings.

The mean and the standard deviation of the ratings for tests on Principles of Education given by TTC are found to be 3.35 and 0.56 respectively, the modal value of rating being 3. In this case also the variance is slightly high, indicating some amount of heterogeneity of the ratings. In this case, the mean and the modal value of rating are very close to each other. It may therefore be concluded that the tests on the subjects given by TTC are of medium level of validity.

Since the mean of the ratings for the tests given by BIDE is 2.71 and that of tests given by TTC is 3.35, the corresponding mean difference is found to be significant at the 5% level as indicated by  $t = - 2.84$  with 42 degrees of freedom. Therefore, it may be concluded that the validity coefficient of the tests given by TTC on Principles of Education is higher than that of the tests given by BIDE on the same Subject.

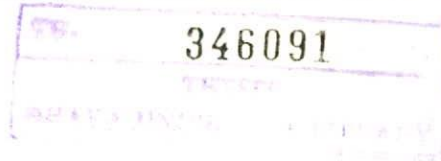
#### **Educational Psychology**

The mean and the standard deviation of the distribution of ratings for the tests on Educational Psychology given by BIDE are found to be 2.80 and 0.75 respectively, the modal value of ratings being 3. This indicates that the mean and the mode are very close to each other, even though the variance of the distribution of ratings is high. Therefore, it may be concluded that the validity of the tests on Educational Psychology given by BIDE is nearly of medium level, inspite of the heterogeneity of the ratings.



The mean and the standard deviation of the ratings of the tests on Educational Psychology given by TTC are found to be 3.30 and 0.46 respectively. In this case also modal value of rating being 3 is very close to the mean. The variance of ratings indicates same amount of homogeneity of the ratings. It may therefore be concluded that the tests on this subject given by TTC are of medium level of validity.

Since the mean of ratings for the tests on Educational Psychology given by BIDE is 2.80 and that of the tests on the same Subject given by TTC is 3.30, the corresponding mean difference is found to be significant at the chosen level as indicated by  $t = -2.48$  with 38 degrees of freedom. Hence it may be concluded that the validity coefficient of the tests given by TTC on Educational Psychology is higher than that of the tests given by BIDE on the same Subject.



### History of Education

The mean and the standard deviation of the distribution of ratings for tests on History of Education given by BIDE are found to be 3.09 and 0.83 respectively, the modal value of rating being 3. The mean and the modal rating are very close to each other. In this case the variance is high enough to indicate heterogeneity of the ratings. It may therefore be concluded that the tests on History of Education used by BIDE are of medium level of validity.



The mean and the standard deviation of the distribution of ratings for the tests on History of Education administered by TTC are found to be 3.56 and 0.57 respectively. The modal value of rating in this case being 4 is quite close to the mean. The variance being 0.57 is slightly high, indicating some amount of heterogeneity of the ratings. Hence it may be concluded that the tests on History of Education used by TTC are of high level of validity.

Since the mean of the ratings of the tests given by BIDE is 3.09 and that of tests given by TTC is 3.56, the corresponding mean difference is found to be significant at 5% level as indicated by  $t = -2.25$  with 46 degrees of freedom. Therefore, it may be concluded that validity coefficient of the tests used by the TTC on History of Education is higher than of the tests used by BIDE on the same Subject.

#### **Educational Evaluation and Guidance**

The mean and the standard deviation of the distribution of ratings for the tests on Educational Evaluation and Guidance administered by BIDE are found to be 2.92 and 0.69 respectively. The modal value of rating is 3, which indicates that the mean and the mode of distribution are very close to each other, even though the variance of the distribution is quite high. It may therefore be concluded that the validity of the tests given by BIDE is of medium level, inspite of some amount of heterogeneity of the ratings.

The mean and the standard deviation of the distribution of ratings for the tests on the same Subject administered by TTC are found to be 3.14 and 0.68 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of ratings are very close to each other, even through the variance of the distribution is quite high. Hence it may be concluded that the validity of the tests on the Educational Evaluation and Guidance used by TTC are of medium level, even through there is some amount of heterogeneity of the ratings.

Since the mean of the ratings of the tests given by BIDE is 2.92 and the mean of the ratings of the tests given by TTC is 3.14, the corresponding mean difference is found to be non-significant at the 5% level as indicated by  $t = -1.16$  with 52 degrees of freedom. Therefore, it may be concluded that the validity Coefficient of the tests on Educational Evaluation and Guidance given by BIDE and that of tests on the same Subject given by TTC are equal.

### **Education and National Development**

The mean and the standard deviation of the distribution of the ratings, for the tests on Education and National Development administered by BIDE are found to be 2.75 and 0.83 respectively, the modal value of rating being 3. This indicates that the mean and the mode of distribution of ratings are very close to each other, even though the variance of the distribution is quite high.

It may therefore be concluded that the validity of the tests used by BIDE is of medium level, inspite of heterogeneity of the ratings.

The mean and the standard deviation of the distribution of ratings for the tests on Education and National Development administered by TTC are found to be 3.17 and 0.60 respectively. The modal value of rating is 3. This indicates that the mean and the mode of the distribution of the ratings are very close to each other, even though the variance is slightly high. Therefore, it may be concluded that the validity of the tests given by TTC is of medium level, inspite of some amount of heterogeneity of the ratings.

Since the mean of distribution of ratings for the tests on Education and National Development used by BIDE is 2.75 and that of the tests on the same Subject used by TTC is 3.17, the corresponding mean difference is found to be non-significant at the chosen level as indicated by  $t = -1.65$  with 32 degree of freedom. Hence it may be concluded that the validity coefficient of the tests on Education and National Development administered by BIDE and that of the tests on the same Subject administered by TTC, to their respective group of students are same.

#### Elective Subjects

Data on Comparison of content validity of tests on six elective Subject given by BIDE and by TTC have been presented in table 50.



Table 50

Data on comparison of content validity of Tests Given by BIDE and by TTC to Their Respective Group of Students (Elective Subjects)

Subject	Sum of ratings indicating level of validity of all tests												t	df
	BIDE						TTC							
	4	3	2	1	Mean	SD	4	3	2	1	Mean	SD		
Bangla	8	9	3	1	3.14	0.83	9	11	3		3.26	0.67	-0.52	42
English	1	6	3	1	2.64	0.77	2	9	1		3.08	0.49	-1.58	21
Mathematics	1	11	5	2	2.58	0.75	4	11	3		3.06	0.62	-2.06	35
Geography	4	6	5	1	2.81	0.88	7	5			3.58	0.49	-2.63	26
Science	4	15	8	1	2.79	0.72	6	21	5		3.03	0.59	-1.39	58
Social Science	3	5	5	1	2.71	0.88	7	4	1		3.50	0.65	-2.47	24

### Bangla

The mean and the standard deviation of the distribution of ratings for the tests on Bangla given by BIDE are found to be 3.14 and 0.83 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution are very close to each other, although the variance of the distribution is high. Hence it may be concluded that the validity of the tests on Bangla administered by BIDE is of medium level, inspite of the heterogeneity of the ratings.

The mean and the standard deviation of the distribution of ratings for the tests on Bangla given by TTC are found to be 3.26 and 0.67 respectively. The modal value of rating being 3. This indicates that the mode and the mean of the distribution are close to each other, even though the variance is slightly high. It may therefore be concluded that the validity of the tests on Bangla administered by TTC are of midium level, inspite of some amount of heterogeneity of the ratings.

Since the mean of the ratings for the tests used by BIDE is 3.14 and that of the tests used by TTC is 3.26, the corresponding mean difference is found to be non-significant at the chosen level as indicated by  $t = -0.52$  with 42 degrees of freedom. Hence it may be concluded that the validity coefficient of the tests on Bangla given by BIDE and validity coefficient of the tests on Bangla given by TTC are equal.

### English

The mean and the standard deviation of the distribution of the ratings, for the tests on English, administered by BIDE are found to be 2.64 and 0.77 respectively. The modal value of rating is 3. This indicates that the mean and mode of the distribution are quite close to each other, even through the variance is high. Therefore, it may be concluded that the validity of the tests on English given by BIDE is of medium level, inspite of heterogeneity in ratings.

The mean and the standard deviation of the distribution of the ratings, for the tests on English, used by TTC are found to be 3.08 and 0.49 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution are almost equal. Hence it may be concluded that the validity of the tests on English given by TTC is of medium level.

Since the mean of the ratings for the tests on English given by BIDE is 2.64 and mean of the ratings for the tests on the same Subject given by TTC is 3.08, the corresponding mean difference is found to be non-significant at the 5% level as indicated by  $t = -1.58$  with 21 degrees of freedom. Therefore, it may be concluded that the validity coefficient of the tests on English given by BIDE and that of the tests on the same Subject given by TTC are almost equal.

### Mathematics

The mean and the standard deviation of the distribution of ratings, for the tests on Mathematics, administered by BIDE are found to be 2.58 and 0.75 respectively. The modal value of rating being 3. This indicates that the mean and the mode of the distribution are very close to each other, even though the variance of the distribution of ratings is high. Therefore, it may be concluded that the validity of the tests on Mathematics given by BIDE is of medium level, inspite of the heterogeneity of the ratings.



The mean and the standard deviation of the distribution of ratings, for tests on Mathematics, used by TTC are found to be 3.06 and 0.62 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of rating are nearly equal, even though the variance of the distribution is slightly high. Hence it may be concluded that the validity of the tests on Mathematics given by TTC is also of medium level.

Since the mean of the distribution of ratings for the tests on Mathematics administered by BIDE is 2.58 and that of tests administered by TTC is 3.06, the corresponding mean difference is found to be significant at the chosen level as indicated by  $t = -2.06$  with 35 degrees of freedom. It may therefore be concluded that the validity coefficient of the tests on Mathematics used by TTC is higher than that of the tests on the same Subject used by BIDE.

### **Geography**

The mean and the standard deviation of the distribution of ratings for the tests on Geography, given by BIDE are found to be 2.81 and 0.88 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of ratings are very close to each other, although the variance of the distribution of ratings is high. Therefore, it may be concluded that the validity of the tests on Geography used by BIDE is of medium level, inspite of heterogeneity of the ratings.

The mean and the standard deviation of the distribution of ratings for the tests on Geography given by TTC are found to be 3.58 and 0.49 respectively. The modal value of rating in this case is 4. This indicates that the mean and the mode of the distribution of ratings are close to each other. The variance of the distribution is not high. It may therefore be concluded that the validity of the tests on Geography used by TTC is of high level.

Since the mean of the ratings for the tests on Geography given by BIDE is 2.81 and that for the tests on the same Subject given by TTC is 3.58, the corresponding mean difference is found to be significant at the 5% level as indicated by  $t = -2.63$  with 26 degrees of freedom. Hence it may be concluded that the validity coefficient of the tests on Geography used by TTC is higher than that of the tests on the same Subject used by BIDE.

### Science

The mean and the standard deviation of the distribution of the ratings for the tests on Science administered by BIDE are found to be 2.79 and 0.72 respectively. The modal value of rating is 3. This indicates that the mean and the mode of the distribution of the ratings are very close to each other, although variance of the distribution is quite high. Hence it may be concluded that the tests used by BIDE are of medium level of validity.

The mean and the standard deviation of the distribution of the ratings for the tests on Science administered by TTC are found to be 3.03 and 0.59 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of ratings are almost equal, even though there is slight heterogeneity of the ratings. Therefore, it may be concluded that the tests used by TTC are of medium level of validity.

Since the mean of the distribution of ratings for the tests on Science given by BIDE is 2.79 and the mean of the distribution of ratings for the tests on the same Subject given by TTC is 3.03, the corresponding mean difference is found to be non-significant at the 5% level as indicated by  $t = -1.39$  with 58 degrees of freedom. It may therefore be concluded that the validity coefficient of the tests used by BIDE and the validity coefficient of the tests used by TTC are almost equal.

### **Social Science**

The mean and the standard deviation of the distribution of the ratings for the tests on Social Science given by BIDE are found to be 2.71 and 0.88 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution are very close to each other, even though the variance of the distribution is high. It may therefore be concluded that the validity of the tests on Social Science used by BIDE is of medium level.



The mean and the standard deviation of the distribution of the ratings for the tests on Social Science given by TTC are found to be 3.50 and 0.65 respectively. The modal value of rating is 4. This indicates that the mean and the mode of the distribution of ratings are quite close to each other, inspite of some amount of hegerogeneity of the ratings. Hence it may be concluded that the tests used by TTC are of high level of validity.

Since the mean of the distribution of ratings for the tests on Social Science administered by BIDE is 2.71 and the mean of the distribution of ratings for the tests on the same Subject administered by TTC is 3.50, the corresponding mean difference is found to be significant at the chosen level, as indicated by  $t = -2.47$  with 24 degrees of freedom. Hence it may be concluded that the validity coefficient of the tests on Social Science used by TTC is higher than that of the tests on Social Science used by BIDE.

#### **Practical Teaching Aspect**

Data on comparison of construct validity of tests on practical teaching aspect administered by BIDE and by TTC are furnished in Table 51.

Table 51

Data on comparison of construct validity of Tests Given by BIDE and by TTC to Their Respective Group of Subjects (Practical Teaching Aspect)

Component	Ratings indicating validity												t	df
	BIDE						TTC							
	4	3	2	1	Mean	SD	4	3	2	1	Mean	SD		
Practice Teaching	12	18	15	10	2.58	1.02	21	26	7		3.26	0.67	-4.07	107
Viva-Voce Exam.	9	19	21	5	2.57	0.86	13	27	12	1	2.98	0.74	-2.60	104
Internal Assessment	12	13	19	7	2.59	0.99	20	25	9		3.20	0.70	-3.63	103
Total	32	50	55	22	2.58	0.96	54	78	28	1	3.15	0.72	-6.56	318

### Practice Teaching

The mean and the standard deviation of the distribution of the ratings for the tests on Practice Teaching administered by BIDE are found to be 2.58 and 1.02 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of ratings are close to one another, even though the variance of the distribution is very high. It may therefore be concluded that the validity of the tests given by BIDE is of medium level, inspite of heterogeneity of the ratings.

The mean and the standard deviation of the distribution of the ratings for the tests on Practice Teaching administered by TTC are

found to be 3.26 and 0.67 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of ratings are very close to each other, inspite of some heterogeneity of the ratings. Hence it may be concluded that the validity of the tests given by TTC is of medium level.

Since the mean of the distribution of rating for the tests on practice Teaching given by BIDE is 2.58 and that for the tests on Practice Teaching given by TTC is 3.26, the corresponding mean difference is found to be significant at the 5% level, as indicated by  $t = -4.07$  with 107 degrees of freedom. Therefore, it may be concluded that the validity coefficient of the tests used by TTC is higher than that of the tests used by BIDE.

#### Viva-Voce Examination

The mean and the standard deviation of the distribution of the ratings for the tests on Viva-Voce Examination administered by BIDE are found to be 2.57 and 0.86 respectively, the modal value of rating being 2. This indicates that the mean and the mode of the distribution are close to each other, even though the variance of the distribution is high enough. Therefore, it may be concluded that the tests on Viva-Voce Examination given by BIDE are of low level of validity.

The mean and the standard deviation of the distribution of the ratings for the tests on Viva-Voce Examination administered by TTC



are found to be 2.98 and 0.74 respectively, the modal value of rating being 3. This indicates that the mean and the mode of distribution are almost the same, although the variance of the distribution is quite high. Hence it may be concluded that the validity of the tests on Viva-Voce Examination given by TTC is of medium level, inspite of some heterogeneity of the ratings.

Since the mean of the distribution of the ratings for the tests on Viva-Voce Examination given by BIDE is 2.57 and the mean of the distribution of the rating for the tests on Viva-Voc Examination given by TTC is 2.98, the corresponding mean difference is found to be significant at the 5% level, as indicated by  $t=-2.60$  with 104 degrees of freedom. Therefore, it may be concluded that the tests on Viva-Voce Examination given by TTC have higher validity coefficient than the tests given by BIDE have.

#### **Internal Assessment**

The mean and the standard a deviation of the distribution of the rations for the tests on Internal Assessment given by BIDE are found to 2.59 and 0.99 respectively, the modal value of rating being 2. This indicates that the mean and the mode of the distribution of ratings are close to one another, even though the variance of the distribution is high. Therefore, it may be concluded that the tests administered by BIDE are of low level of validity.

The mean the standard deviation of the distribution of the ratings for the tests on Internal Assessment given by TTC are found to be 3.20 and 0.70 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution of ratings are very close to each other, although there is some amount of heterogeneity of the ratings. Hence it may be concluded that the validity of the tests administered by TTC is of medium level.

Since the mean of the distribution of the ratings for the tests on Internal Assessment used by BIDE is 2.59 and the mean of the distribution of the ratings for the tests used by TTC for similar purpose is 3.20, the corresponding mean difference is found to be significant at the chosen level as indicated by  $t = -3.63$  with 103 degrees of freedom. Therefore, it may be concluded that the tests on Internal Assessment given by TTC are of higher validity than those given by BIDE.

#### **Total Assessment of Practical Teaching Aspect**

The mean and standard deviation of the distribution of the total ratings for tests for Total Assessment of Practical Teaching Aspect administered by BIDE are found to be 2.58 and 0.96 respectively, the modal value of rating being 2. This indicates that the mean and the mode of the distribution of ratings are close to each other, even though the variance of the distribution is high. Therefore, it may be concluded that the validity of the

tests for Total Assessment of Practical Teaching Aspect used by BIDE are of low level, inspite of heterogeneity of the ratings.

The mean and the standard deviation of the distribution of the ratings for tests for Total Assessment of Practical Teaching Aspect administered by TTC are found to be 3.15 and 0.72 respectively, the modal value of rating being 3. This indicates that the mean and the mode of the distribution are very close to each other, although there is some heterogeneity of ratings. Hence it may be concluded that the tests for Total Assessment of Practical Teaching Aspect administered by TTC are of medium level of validity.

Since the mean of distribution of ratings for tests for Total Assessment of Practical Teaching Aspect used by BIDE is 2.58 and that of tests used by TTC is 3.15, the corresponding mean difference is found to be significant at the 5% level, as indicated by  $t = -6.56$  with 318 degrees of freedom. Therefore, it may be concluded that the validity coefficient of the tests used for Total Assessment of Practical Teaching Aspect administered by TTC is higher than that of tests administered by BIDE.

#### **Overall Assessment of Validity of Examinations**

The fifty six experts were requested to make a comparison between the overall validity of examinations and evaluation systems of BIDE and TTC. The relevant data are presented in Table 52.



Table 52

Data on Comparison between Overall Assessment of validity of Examination and Evaluation Systems of BIDE and TTC as Made by Experts

Validity of BIDE's Examination and Evaluation system compared to that of TTC	Number	Percent
More	10	18
Equal	13	23
Less	33	59
Total	56	100

The assessment shows that the examination and evaluation system of BIDE is slightly less valid than those of the TTC. A majority of the respondents (59%) appears to claim that the examination and evaluation system of BIDE is less valid, while according to 18% of the respondents BIDE's system is more valid. The remaining respondents appear to rate both the systems as equally valid.

## CHAPTER V

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### Summary of Findings on Reliability

Findings on reliability of tests used by BIDE

##### Compulsory Subjects

**Principles of Education:** The reliability coefficient of the tests on Principles of Education used by BIDE is found to be +0.82. The corresponding value of  $z$  being +3.21, which is significant at the 5% level (chosen for the purpose).

**Educational Psychology:** The reliability coefficient of the tests on Educational Psychology administered by BIDE is found to be +0.88. The corresponding value of  $z$  is +7.02, which is significant at the chosen level.

**History of Education:** The reliability coefficient of the tests on History of Education given by BIDE is found to be +0.82. The corresponding value of  $z$  being +3.21, which is significant at the 5% level.

**Educational Evaluation and Guidance:** The reliability coefficient of the tests on Educational Evaluation and Guidance used by BIDE is found to be +0.84. The corresponding value of  $z$  is +4.33, which is significant at the chosen level.

**Education and National Development:** The reliability coefficient of the tests on Education and national Development given by BIDE is found to be +0.80. The corresponding value of  $z$  is +2.19, which is significant at the 5% level.

### Elective Subjects

**Bangla:** The reliability coefficient of the tests on Bangla administered by BIDE is found to be +0.86. The corresponding value of  $z$  being +3.52, which is significant at the chosen level.

**English:** The reliability coefficient of the tests on English used by BIDE is found to +0.92. The corresponding value of  $z$  is +4.22, which is significant at the 5% level.

**Mathematics:** The reliability coefficient of the tests on Mathematics given by BIDE is found to be +0.88. The corresponding value of  $z$  being +3.93, which is significant at the chosen level.

**Geography:** The reliability coefficient of the tests on Geography used by BIDE is found to be +0.89. The corresponding value of  $z$  is +4.46, which is significant at the chosen level.

**Science:** The reliability coefficient of the tests on Science administered by BIDE is found to be +0.88. The corresponding value of  $z$  is +3.71, which is significant at the chosen level.



**Social Science:** The reliability coefficient of the tests on Social Science used by BIDE is found to be +0.85. The corresponding value of  $z$  is +3.41, which is significant at the chosen level.

• **Practical Teaching Aspect**

The reliability coefficient of the tests on Practical Teaching Aspect administered by BIDE is found to be +0.91. The corresponding value of  $z$  being +9.67, which is significant at the 5% level.

**Total Assessment**

The reliability coefficient of the tests used by BIDE for Total Assessment is found to be +0.98. The corresponding value of  $z$  is +23.10, which is significant at the 5% level.

**Findings on reliability of tests used by TTC**

**Compulsory Subjects**

**Principles of Education:** The reliability coefficient of the tests on Principles of Education used by TTC is found to be +0.70. The corresponding value of  $z$  being -1.77, which is not significant at the 5% level.

**Educational Psychology:** The reliability coefficient of the tests on Educational Psychology administered by TTC is found to be +0.65. The corresponding value of  $z$  is -3.31, which is not significant at the chosen level.

**History of Education:** The reliability coefficient of the tests on History of Education given by TTC is found to be +0.63. The corresponding value of  $z$  being -3.87, which is not significant at the 5% level.

**Educational Evaluation and Guidance:** The reliability coefficient of the tests on Educational Evaluation and Guidance used by TTC is found to be +0.86. The corresponding value of  $z$  is +5.36, which is significant at the chosen level.

**Education and National Development:** The reliability coefficient of the tests on Education and National Development given by TTC is found to be +0.64. The corresponding value of  $z$  is -3.59, which is not significant at the 5% level.

#### Elective Subjects

**Bangla:** The reliability coefficient of the tests on Bangla administered by TTC is found to be +0.70. The corresponding value of  $z$  being -1.21, which is not significant at the chosen level.

**English:** The reliability coefficient of the tests on English used by TTC is found to be +0.90. The corresponding value of  $z$  is +2.29, which is significant at the 5% level.

**Mathematics:** The reliability coefficient of the tests on Mathematics given by TTC is found to be +0.73. The corresponding value of  $z$  being -0.47, which is not significant at the chosen level.

**Geography:** The reliability coefficient of the tests on Geography used by TTC is found to be +0.82. The corresponding value of  $z$  is +1.26, which is not significant at the chosen level.

**Science:** The reliability coefficient of the tests on Science administered by TTC is found to be +0.68. The corresponding value of  $z$  being -1.52, which is not significant at the 5% level.

**Social Science:** The reliability coefficient of the tests on Social Science used by TTC is found to be +0.71. The corresponding value of  $z$  is -0.84, which is not significant at the chosen level.

#### Practical Teaching Aspect

The reliability coefficient of the tests on Practical Teaching Aspect administered by TTC is found to be +0.76. The corresponding value of  $z$  being +0.39, which is not significant at the 5% level.

#### Total Assessment

The reliability coefficient of the tests used by TTC for Total Assessment is found to be +0.95. The corresponding value of  $z$  is +14.37, which is significant at the 5% level.



## Findings on comparison of reliability

### Compulsory Subjects

**Principles of Education:** The difference between the reliability coefficients of the tests given by BIDE and those given by TTC has been found to be significant at the chosen level.

**Educational Psychology:** The difference between the reliability coefficients of the tests on Educational Psychology used by BIDE and those used by TTC has been found to be significant at the 5% level.

**History of Education:** The difference between the reliability coefficients of the tests on History of Education given by BIDE and those given by TTC has been found to be significant at the chosen level.

**Educational Evaluation and Guidance:** The difference between the reliability coefficients of the tests on Educational Evaluation and Guidance administered by BIDE and those administered by TTC has been found to be not significant at the chosen level.

**Education and National Development:** The difference between the reliability coefficients of the tests on Education and National Development given by BIDE and those given by TTC has been found to be significant at the 5% level.

### Elective Subjects

**Bangla:** The difference between the reliability coefficients of the tests on Bangla administered by BIDE and those administered by TTC has been found to be significant at the 5% level.

**English:** The difference between the reliability coefficients of the tests on English used by BIDE and those used by TTC has been found to be not significant at the chosen level.

**Mathematics:** The difference between the reliability coefficient of the tests on Mathematics given by BIDE and that of the tests on the same Subject given by TTC has been found to be significant at the chosen level.

**Geography:** The difference between the reliability coefficients of the tests on Geography administered by BIDE and those administered by TTC has been found to be not significant at the 5% level.

**Science:** The difference between the reliability coefficient of the tests on Science used by BIDE and that of the tests on Science used by TTC has been found to be significant at the chosen level.

**Social Science:** The difference between the reliability coefficient of the tests on Social Science given by BIDE and those given by TTC has been found to be significant at the 5% level.

### Practical Teaching Aspect

The difference between the reliability coefficients of the tests on Practical Teaching Aspect administered by BIDE and those administered by TTC has been found to be significant at the 5% level.

### Total Assessment

The difference between the reliability coefficient of the tests used by BIDE for Total Assessment and that of the tests used by TTC for the same purpose has been found to be significant at the 5% level.

### Conclusions on Reliability

Conclusions on reliability of tests used by BIDE

#### Compulsory Subjects

**Principles of Education:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Therefore, it may be concluded that the tests on Principles of Education used by BIDE are sufficiently reliable.

**Educational Psychology:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Hence it may be concluded that the tests on Educational Psychology given by BIDE are reliable enough for the purpose.



**History of Education:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. It may therefore be concluded that the tests on History of Education used by BIDE are reliable enough.

**Educational Evaluation and Guidance:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Hence it may be concluded that the tests on Educational Evaluation and guidance given by BIDE are sufficiently reliable for the purpose.

**Education and National Development:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Therefore, it may be concluded that the tests on Education and National Development administered by BIDE are reliable enough.

#### Elective Subjects

**Bangla:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Hence it may be concluded that the tests on Bangla administered by BIDE are sufficiently reliable.

**English:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. It may, therefore, be concluded that the tests on English used by BIDE are reliable enough for the purpose.

**Mathematics:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Therefore, it may be concluded that the tests on Mathematics given by BIDE are quite reliable for assessment.

**Geography:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Hence, it may be concluded that the tests on Geography administered by BIDE are sufficiently reliable.

**Science:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Therefore, it may be concluded that the tests on Science used by BIDE are reliable enough.

**Social Science:** The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Hence it may be concluded that the tests on Social Science given by BIDE are sufficiently reliable.

#### Practical Teaching Aspect

The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Hence it may be concluded that the tests on Practical Teaching Aspect administered by BIDE are sufficiently reliable.

#### Total Assessment

The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Therefore, it may be concluded that the tests

used by BIDE for Total Assessment of its group of students are reliable enough for the purpose.

### Conclusions on reliability of tests used by TTC

#### Compulsory Subjects

**Principles of Education:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. It may, therefore, be concluded that the tests on Principles of Education administered by TTC are not reliable enough for the purpose.

**Educational Psychology:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. Hence, it may be concluded that the tests on Educational Psychology used by TTC are not that much reliable as they should be.

**History of Education:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. Therefore, it may be concluded that the tests on History of Education given by TTC are not reliable enough.

**Educational Evaluation and Guidance:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is rejected. Therefore, it may be concluded that the tests on Educational Evaluation and Guidance used by TTC are sufficiently reliable.



**Education and National Development:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. Hence, it may be concluded that the tests on Education and National Development administered by TTC are not reliable enough for the purpose.

### Elective Subjects

**Bangla:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. Therefore, it may be concluded that the reliability of the tests on Bangla administered by TTC are not sufficient for the purpose.

**English:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is rejected. Hence, it may be concluded that the tests on English used by TTC are reliable enough.

**Mathematics:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. It may, therefore, be concluded that the tests on Mathematics given by TTC are not sufficiently reliable for the purpose.

**Geography:** The hypothesis, that the reliability coefficient is equal to  $+0.75$ , is retained. Therefore, it may be concluded that the reliability of the tests on Geography used by TTC is not high enough as it should be.

**Science:** The hypothesis, that the reliability coefficient is equal to +0.75, is retained. Hence, it may be concluded that the tests on Science administered by TTC are not sufficiently reliable.

**Social Science:** The hypothesis, that the reliability coefficient is equal to +0.75, is retained. Therefore, it may be concluded that the tests on Social Science given by TTC are not that much reliable as they should be.

#### Practical Teaching Aspect

The hypothesis, that the reliability coefficient is equal to +0.75, is retained. Hence, it may be concluded that the tests on Practical Teaching Aspect administered by TTC are not sufficiently reliable.

#### Total Assessment

The hypothesis, that the reliability coefficient is equal to +0.75, is rejected. Therefore, it may be concluded that the tests used by TTC for Total Assessment of its group of students are reliable enough for the purpose.

#### **Conclusions on comparison of reliability**

##### Compulsory Subjects

**Principles of Education:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Therefore, it may be concluded that the tests given by BIDE are more reliable than the tests given by TTC to their respective group of students.

**Educational Psychology:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Hence, it may be concluded that the tests used by BIDE for its group of students are more reliable than the tests used by TTC for its group of students.

**History of Education:** The hypothesis, that the two reliability coefficients do not differ, is rejected. It may, therefore, be concluded that the tests on History of Education administered by BIDE for are more reliable than the tests on the same Subject administered by TTC.

**Educational Evaluation and Guidance:** The hypothesis, that the two reliability coefficients do not differ, is retained. Hence, it may be concluded that the tests on Educational Evaluation and Guidance used by BIDE and those used by TTC are almost equally reliable.

**Education and National Development:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Therefore, it may be concluded that the tests on Education and National Development given by BIDE are more reliable than the tests given by TTC.

#### Elective Subjects

**Bangla:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Therefore, it may be concluded that the



tests on Bangla administered by BIDE are more reliable than the tests on the same Subject administered by TTC.

**English:** The hypothesis, that the two reliability coefficients do not differ, is retained. Therefore, it may be concluded that the tests on English used by BIDE and the tests on English used by TTC are almost equally reliable.

**Mathematics:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Hence, it may be concluded that the tests on Mathematics given by BIDE are more reliable than those given by TTC to their respective group of students.

**Geography:** The hypothesis, that the two reliability coefficients do not differ, is retained. Hence, it may be concluded that the tests on Geography administered by BIDE and the tests on same Subject administered by TTC are equally reliable.

**Science:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Therefore, it may be concluded that the tests on Science used by BIDE are more reliable than the tests on Science used by TTC.

**Social Science:** The hypothesis, that the two reliability coefficients do not differ, is rejected. It may, therefore, be concluded that the tests on Social Science given by BIDE are more reliable than the tests on the same Subject given by TTC.

**Practical Teaching Aspect:** The hypothesis, that the two reliability coefficients do not differ, is rejected. It may, therefore, be concluded that the tests on Practical Teaching Aspect administered by BIDE are more reliable than the tests on Practical Teaching administered by TTC.

**Total Assessment:** The hypothesis, that the two reliability coefficients do not differ, is rejected. Hence, it may be concluded that tests used by BIDE for Total Assessment of its group of students are more reliable than the tests used by TTC for Total Assessment of its corresponding group of students.

#### Summary of Findings on Validity

##### **Findings on predictive validity of tests used by BIDE**

##### Compulsory Subjects

**Principles of Education:** The Validity Coefficient of the tests on Principles of Education administered by BIDE is found to be +0.37. The corresponding value of  $t$  is +6.96 with 305 degrees of freedom, which is significant at the 5% level.

**Educational Psychology:** The Validity Coefficient of the tests on Educational Psychology used by BIDE is found to be +0.40. The corresponding value of  $t$  is +7.62 with 305 degrees of freedom. This is significant at the chosen level.

**History of Education:** The Validity Coefficient of the tests on History of Education given by BIDE is found to be +0.32. The

corresponding value of  $t$  is +5.90 with 305 degrees of freedom, which is significant at the chosen level.

**Educational Evaluation and Guidance:** The Validity Coefficient of the tests on Educational Evaluation and Guidance administered by BIDE is found to be +0.41. The corresponding value of  $t$  is +7.85 with 305 degrees of freedom. This value of  $t$  is significant at the 5% level.

**Education and National Development:** The Validity Coefficient of the tests on Education and National Development used by BIDE is found to be +0.34. The corresponding value of  $t$ , with 305 degrees of freedom being +6.71, which is significant at the chosen level.

#### Elective Subjects

**Bangla:** The Validity Coefficient of the tests on Bangla given by BIDE is found to be +0.55. The corresponding value of  $t$  is +7.27 with 122 degrees of freedom. The value of  $t$  is significant at the 5% level.

**English:** The Validity Coefficient of the tests on English used by BIDE is found to be +0.37. The corresponding value of  $t$  is +2.76 with 48 degrees of freedom, which is significant at the chosen level.

**Mathematics:** The Validity Coefficient of the tests on Mathematics



administered by BIDE is found to be +0.33. The corresponding value of  $t$  is +3.43 with 96 degrees of freedom. This value of  $t$  is found to be significant at the chosen level.

**Geography:** The Validity Coefficient of the tests on Geography used by BIDE is found to be +0.33. The corresponding value of  $t$  is +3.57 with 104 degrees of freedom. The value of  $t$  is significant at the 5% level.

**Science:** The Validity Coefficient of the tests on Science administered by BIDE is found to be +0.24. The corresponding value of  $t$  is +2.29 with 86 degrees of freedom, which is significant at the chosen level.

**Social Science:** The Validity Coefficient of the tests on Social Science given by BIDE is found to be +0.38. The corresponding value of  $t$ , with 146 degrees of freedom, being +4.96, which is significant at the 5% level.

#### **Findings on predictive validity of tests used by TTC**

##### **Compulsory Subjects**

**Principles of Education:** The Validity Coefficient of the tests on Principles of Education used by TTC is found to be +0.40. The corresponding value of  $t$  is +7.32 with 281 degrees of freedom. This is significant at the chosen level.

**Educational Psychology:** The Validity Coefficient of the tests on Educational Psychology administered by TTC is found to be +0.49. The corresponding value of  $t$  is +9.42 with 281 degrees of freedom, which is significant at the 5% level.

**History of Education:** The Validity Coefficient of the tests on History of Education given by TTC is found to be +0.31. The corresponding value of  $t$  is +5.47 with 281 degrees of freedom. This value of  $t$  is significant at the chosen level.

**Educational Evaluation and Guidance:** The Validity Coefficient of the tests on Educational Evaluation and Guidance used by TTC is found to be +0.33. The corresponding value of  $t$ , with 281 degrees of freedom, being +5.86, which is significant at the 5% level.

**Education and National Development:** The Validity Coefficient of the tests on Education and National Development administered by TTC is found to be +0.31. The corresponding value of  $t$  is +5.47 with 281 degrees of freedom, which is significant at the chosen level.

#### Elective Subjects

**Bangla:** The Validity Coefficient of the tests on Bangla administered by TTC is found to be +0.39. The corresponding value of  $t$  is +4.87 with 132 degrees of freedom. The value of  $t$  is significant at the chosen level.

**English:** The Validity Coefficients of the tests on English used by TTC is found to be +0.42. The corresponding value of  $t$  is +2.07 with 20 degrees of freedom. The value of  $t$  is significant at the 5% level.

**Mathematics:** The Validity Coefficients of the tests on Mathematics administered by TTC is found to be +0.29. The corresponding value of  $t$  is +3.24 with 114 degrees of freedom. This value of  $t$  is significant at the chosen level.

**Geography:** The Validity Coefficients of the tests on Geography used by TTC is found to be +0.45. The corresponding value of  $t$  is +3.49 with 48 degrees of freedom. The value of  $t$  is significant at the chosen level.

**Science:** The Validity Coefficients of the tests on Science administered by TTC is found to be +0.41. The corresponding value of  $t$  with 113 degrees of freedom being +4.78, which is significant at the 5% level.

**Social Science:** The Validity Coefficients of the tests on Social Science given by TTC is found to be +0.31. The corresponding value of  $t$  is +3.23 with 98 degrees of freedom. This value of  $t$  is significant at the 5% level.



## Findings on comparison of predictive validity

### Compulsory Subjects

**Principles of Education:** The difference between the validity coefficients of the tests given by BIDE and by TTC to their respective group of students on Principles of Education is found to be non-significant at the chosen level, the resulting value of  $z$  being  $-0.43$ .

**Educational Psychology:** The difference between the validity coefficients of the tests on Educational Psychology used by BIDE and by TTC is found to be non-significant at the chosen level, the resulting value of  $z$  being  $-1.36$ .

**History of Education:** The difference between the validity coefficients of the tests on History of Education administered by BIDE and those administered by TTC is found to be non-significant at the 5% level, the resulting value of  $z$  being  $+0.13$ .

**Educational Evaluation and Guidance:** The difference between the validity coefficients of the tests given by BIDE and by TTC to their respective group of students on Educational Evaluation and Guidance is found to be non-significant at the chosen level, the resulting value of  $z$  being  $+1.12$ .

**Education and National Development:** The difference between the validity coefficients of the tests on Education and National

Development, given by BIDE and by TTC to their respective group of students, is found to be non-significant at the chosen level, the resulting value of  $z$  being +0.41.

**Elective Subjects**

**Bangla:** The difference between the validity coefficients of the tests on Bangla, used by BIDE and by TTC for their respective group of students is found to be non-significant at the 5% level, the resulting value of  $z$  being +1.64.

**English:** The difference between the validity coefficients of the tests on English administered by BIDE and by TTC on their respective group of students is found to be non-significant at the chosen level, the resulting value of  $z$  being -0.22.

**Mathematics:** The difference between the validity coefficients of the tests on Mathematics, given by BIDE and by TTC to their respective group of students, is found to be non-significant at the 5% level, the resulting value of  $z$  being +0.32.

**Geography:** The difference between the validity coefficients of the tests on Geography used by BIDE and by TTC for their respective group of students is found to be non-significant at the chosen level, the resulting value of  $z$  being -0.81.

**Science:** The difference between the validity coefficients of the tests on Science given by BIDE and by TTC to their respective group

of students is found to be non-significant at the 5% level the resulting value of  $z$  being -1.33.

**Social Science:** The difference between the validity coefficients of the tests on Social Science used by BIDE and by TTC for their respective group of students is found to be non-significant at the chosen level, the resulting value of  $z$  being +0.61.

#### Findings on content/construct validity of tests used by BIDE

##### Compulsory Subjects

**Principles of Education:** The mean and the standard deviation of the distribution of ratings for the tests of Principles of Education given by BIDE are found to be 2.71 and 0.88 respectively, the modal value of rating being 3.

**Educational Psychology:** The mean and the standard deviation of the distribution of ratings for the tests on Educational Psychology used by BIDE are found to be 2.80 and 0.75 respectively. The modal value of rating is 3.

**History of Education:** The mean and the standard deviation of the distribution of rating for the tests on History of Education administered by BIDE are found to be 3.09 and 0.83 respectively. The modal value of rating being 3.



**Educational Evaluation and Guidance:** The mean and the standard deviation of the distribution of ratings for the tests on Educational Evaluation and Guidance given by BIDE are found to be 2.92 and 0.69 respectively. The modal value of rating is 3.

**Education and National Development:** The mean and the standard deviation of the distribution of ratings for the tests on Education and National Development used by BIDE are found to be 2.75 and 0.83 respectively, the modal value of ratings being 3.

#### Elective Subjects

**Bangla:** The mean and the standard deviation of the distribution of ratings for the tests on Bangla used by BIDE are found to be 3.14 and 0.83 respectively, the modal value of rating being 3.

**English:** The mean and the standard deviation of the distribution of ratings for the tests on English given by BIDE are found to be 2.64 and 0.77. The mode of the distribution is found to be 3.

**Mathematics:** The mean and the standard deviation of the distribution of ratings for the tests on Mathematics administered by BIDE are found to be 2.58 and 0.75 respectively, the modal value of rating being 3.

**Geography:** The mean and the standard deviation of the distribution of ratings for the tests on Geography used by BIDE are found to be

2.81 and 0.88 respectively. The mode of the distribution is found to be 3.

**Science:** The mean and the standard deviation of the distribution of ratings for the tests on Science administered by BIDE are found to be 2.79 and 0.72 respectively. The modal value of rating is 3.

**Social Science:** The mean and the standard deviation of the distribution of ratings for the tests on Social Science used by BIDE are found to be 2.71 and 0.88 respectively, the modal value of rating being 3.

#### Practical Teaching Aspect

**Internal Assessment:** The mean and the standard deviation of the distribution of ratings for the tests used for Internal Assessment by BIDE are found to be 2.59 and 0.90 respectively, the mode of the ratings being 2.

**Viva-Voce Examination:** The mean and the standard deviation of the distribution of ratings for the tests used in Viva-Voce Examination by BIDE are found to be 2.57 and 0.86 respectively, the mode of rating being 2.

**Practice Teaching:** The mean and the standard deviation of the distribution of ratings for the tests used in Practice Teaching examination by BIDE are found to be 2.58 and 1.02 respectively, the mode of ratings being 3.

**Total Assessment of Achievement in Practical Teaching Aspect:** The mean and the standard deviation of the distribution of ratings for the tests used by BIDE for Total Assessment in Practical Teaching Aspect are found to be 2.58 and 0.96 respectively, the mode of the rating being 2.

**Findings on content/construct validity of the tests used by TTC**  
**Compulsory Subjects**

**Principles of Education:** The mean and the standard deviation of the distribution of ratings for the tests on Principles of Education given by TTC are found to be 3.35 and 0.56 respectively, the modal value of rating being 3.

**Educational Psychology:** The mean and the standard deviation of the distribution of ratings for tests on Educational Psychology used by TTC are found to be 3.30 and 0.46 respectively. The mode of the distribution is 3.

**History of Education:** The mean and the standard deviation of the distribution of ratings for tests on History of Education given by TTC are found to be 3.56 and 0.57 respectively, the modal value of rating being 4.

**Educational Evaluation and Guidance:** The mean and the standard deviation of the distribution of ratings for the tests on Educational Evaluation and Guidance administered by TTC are found to be 3.14 and 0.68 respectively. The modal value of ratings is 3.



**Education and National Development:** The mean and the standard deviation of the distribution of ratings for the tests on Education and National Development used by TTC are found to be 3.17 and 0.60 respectively, the modal value of rating being 3.

### Elective Subjects

**Bangla:** The mean and the standard deviation of the distribution of ratings for the tests on Bangla given by TTC are found to be 3.26 and 0.67 respectively. The modal value of rating is 3.

**English:** The mean and the standard deviation of the distribution of ratings for the tests on English used by TTC are found to be 3.08 and 0.49 respectively, the modal value being 3.

**Mathematics:** The mean and the standard deviation of the distribution of ratings for the tests on Mathematics administered by TTC are found to be 3.06 and 0.62 respectively. The modal value of ratings is 3.

**Geography:** The mean and the standard deviation of the distribution of ratings for the tests on Geography used by TTC are found to be 3.58 and 0.49 respectively. The modal value of ratings is 4.

**Science:** The mean and the standard deviation of the distribution of ratings for the tests on Science given by TTC are found to be 3.03 and 0.58 respectively, the modal of rating being 3.

**Social Science:** The mean and the standard deviation of the distribution of ratings for the tests on Social Science administered by TTC are found to be 3.50 and 0.65 respectively. The mode of the distribution is 4.

#### Practical Teaching Aspect

**Internal Assessment:** The mean and the standard deviation of the distribution of ratings for the tests used for Internal Assessment by TTC are found to be 3.20 and 0.70 respectively, the mode of ratings being 3.

**Viva Voce Examination:** The mean and the standard deviation of the distribution of ratings for the tests used in Viva-Voce Examination by TTC are found to be 2.98 and 0.74 respectively, the mode of ratings being 3.

**Practice Teaching:** The mean and the standard deviation of the distribution of ratings for the tests used in Practice Teaching examination by TTC are found to be 3.26 and 0.67 respectively, the mode of ratings being 3.

**Total Assessment of Achievement in Practical Teaching Aspects:** The mean and the standard deviation of the distribution of ratings for the tests used by TTC for Total Assessment of Achievement in Practical Teaching Aspect are found to be 3.15 and 0.72 respectively, the mode of ratings being 3.

## Findings on comparison of content/construct validity

### Compulsory Subjects

**Principles of Education:** The means of the distributions of the ratings for the tests on Principles of Education given by BIDE and by TTC are 2.71 and 3.35 respectively. The corresponding mean difference is found to be significant at the 5% level, the value of  $t$  being -2.84 with 42 degrees of freedom.

**Educational Psychology:** The mean of the distribution of the ratings for the tests on Educational Psychology used by BIDE is 2.80 and that for the tests on the same Subject given by TTC is 3.30. The corresponding mean difference is found to be significant at the chosen level, the value of  $t$  being -2.48 with 38 degrees of freedom.

**History of Education:** The means of the distributions of ratings for the tests on History of Education given by BIDE and by TTC are 3.09 and 3.56 respectively. The corresponding mean difference is found to be significant at the 5% level as indicated by  $t = -2.25$  with 46 degrees of freedom.

**Educational Evaluation and Guidance:** The means of the distributions of ratings for the tests on Educational Evaluation and Guidance used by BIDE and by TTC are 2.92 and 3.14 respectively. As indicated by  $t = -1.16$  with 52 degrees of freedom, the corresponding mean difference is non-significant at the chosen level.



**Education and National Development:** The means of the distributions of ratings for the tests on Education and National Development administered by BIDE and by TTC are 2.73 and 3.17 respectively. The corresponding mean difference is found to be non-significant at the 5% level, value of  $t$  being -1.65 with 32 degrees of freedom.

### Elective Subjects

**Bangla:** The means of the distributions of ratings for tests on Bangla used by BIDE and by TTC are found to be 3.14 and 3.26 respectively. As indicated by  $t = -0.52$  with 42 degrees of freedom, the corresponding mean difference is non-significant at the chosen level.

**English:** The means of the distributions of ratings for tests on English given by BIDE and by TTC are found to be 2.64 and 3.08 respectively. The corresponding mean difference is found to be non-significant at the 5% level, as indicated by  $t = -1.58$  with 21 degrees of freedom.

**Mathematics:** The mean of the distribution of ratings for the tests on Mathematics administered by BIDE is found to be 2.58 and that of tests administered by TTC is found to be 3.06. The corresponding mean difference is found to be significant at the chosen level, as indicated by  $t = -2.06$  with 35 degrees of freedom.

**Geography:** The means of the distributions of ratings for the tests on Geography used by BIDE and by TTC are found to be 2.81 and 3.58 respectively. The corresponding mean difference is significant at the chosen level, as indicated by  $t = -2.63$  with 26 degrees of freedom.

**Science:** The means of the distributions of ratings for the tests on Science given by BIDE and those given by TTC are found to be 2.79 and 3.03 respectively. As indicated by  $t = -1.39$  with 58 degrees of freedom, the corresponding mean difference is non-significant at the 5% level.

**Social Science:** The means of the distributions of ratings for the tests on Social Science administered by BIDE and those administered by TTC are found to be 2.71 and 3.50 respectively. The corresponding mean difference is found to be significant at the chosen level, as indicated by  $t = -2.47$  with 24 degrees of freedom.

#### Practical Teaching Aspect

**Internal Assessment:** The mean of the distribution of the ratings for the tests on Internal Assessment used by BIDE is 2.59 and that for the tests used by TTC for similar purpose is 3.20. The corresponding mean difference is found to be significant at the 5% level, the value of  $t$  being  $-3.63$  with 103 degrees of freedom.

**Viva Voce Examination:** The means of the distributions of ratings for the tests used in Viva-Voce examinations by BIDE and by TTC are 2.57 and 2.98 respectively. The corresponding mean difference is found to be significant at the chosen level, as indicated by  $t = -2.60$  with 104 degrees of freedom.

**Practice Teaching:** The mean of the distribution of ratings of tests on Practice Teaching given by BIDE is 2.58 and that of tests on Practice Teaching given by TTC is 3.26. The corresponding mean difference is found to be significant at the 5% level, the value of  $t$  being  $-4.07$  with 107 degrees of freedom.

**Total Assessment of Achievement in Practical Teaching Aspect:** The means of the distribution of ratings for tests for Assessment of Achievement in Practical Teaching Aspect used by BIDE and by TTC are 2.58 and 3.15 respectively. The corresponding mean difference is found to be significant at the 5% level, as indicated by  $t = -6.56$  with 318 degrees of freedom.

### Conclusions on Validity

Conclusions on predictive validity of tests used BIDE

#### Compulsory Subjects

**Principles of Education:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore it may be concluded that the tests on Principles of Education administered by BIDE are valid.



**Educational Psychology:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence It may be concluded that the tests on Educational Psychology used by BID are valid enough for the purpose.

**History of Education:** The hypothesis, that the validity coefficient is equal to zero, is rejected. It may therefore be concluded that the tests on History of Education given by BIDE to its group of students are valid.

**Educational Evaluation and Guidance:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Educational Evaluation and Guidance administered by BIDE are sufficiently valid.

**Education and National Development:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore it may be concluded that the tests on Education and National Development are valid enough.

#### Elective Subjects

**Bangle:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Bangle administered by BIDE are sufficiently valid.

**English:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore it may be concluded that the tests on English used by BIDE are valid.

• **Mathematics:** The hypothesis, that the validity coefficient is equal to zero, is rejected. It may therefore be concluded that the tests on Mathematics given by BIDE to this group of students are valid enough for the purpose.

**Geography:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Geography administered by BIDE are valid enough.

**Science:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Science used by BIDE are valid.

**Social Science:** The hypothesis, that the validity coefficient is equal to zero, is rejected. It may therefore be concluded that the tests given by BIDE are sufficiently valid.

#### **Conclusions on predictive validity of test used by TTC**

##### **Compulsory Subject:**

**Principles of Education:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Principles of Education used by TTC are sufficiently valid.

**Educational Psychology:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore It may be concluded that the tests on Educational Psychology given by TTC to its group of students are valid enough for the purpose.

**History of Education:** The hypothesis, that the validity coefficient is equal to zero, is rejected. It may therefore be concluded that the tests on History of Education administered by TTC are valid.

**Educational Evaluation and Guidance:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore, it may be concluded that the tests on Educational Evaluation and guidance used by TTC are quite valid.

**Education and National Development:** The hypothesis, that the validity coefficients is equal to zero, is rejected. Hence it may be concluded that the tests on Education and National Development given by TTC are valid.

#### Elective Subjects

**Bangle:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore, it may be concluded that the tests on Bangle used by TTC valid enough for the purpose.

**English:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on English administered by TTC are sufficiently valid.



**Mathematics:** The hypothesis, that the validity coefficient is equal to zero, is rejected. It may therefore be concluded that the tests on Mathematics used by TTC are valid.

- **Geography:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Geography used by TTC are sufficiently is valid.

**Science:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Therefore, it may be concluded that the tests on Science given by TTC are valid enough for the purpose.

**Social Science:** The hypothesis, that the validity coefficient is equal to zero, is rejected. Hence it may be concluded that the tests on Social Science administered by TTC are valid.

#### Conclusions on comparison of predictive validity

##### Compulsory Subject:

**Principles of Education:** The hypothesis, that the two validity coefficient do not differ is retained. Therefore it may be concluded that the tests on Principles of Education administered by BIDE and those administered by TTC are almost equally valid.

**Educational Psychology:** The hypothesis, that the two validity coefficients do not differ, is retained. Hence it may be concluded that the tests on Educational Psychology used by BIDE and the tests on the same Subject used by TTC are nearly equally valid.

**History of Education:** The hypothesis, that the two validity coefficient do not differ, retained. It may therefore be concluded that the tests on History of Education given by BIDE and by TTC to Their respective group of students are equally to valid.

**Educational Evaluation and Guidance:** The hypothesis, that the two validity coefficients do not differ, is retained. Hence it may be concluded that the tests on Educational Evaluation and Guidance used by BIDE and those by TTC are fairly equally valid.

**Education and National Development:** The hypothesis, that the two validity coefficients do not differ, is retained. Therefore, it may be concluded that the tests on Education and National Development administered by BIDE and by TTC are almost equally valid.

#### Elective Subjects

**Bangla:** The hypothesis, that the two validity coefficients do not differ, is retained. It may therefore be concluded that the tests on Bangla given by BIDE and by TTC to their respective group of students are equally valid.

**English:** The hypothesis, that the two validity coefficients do not differ, is retained. Hence it may be concluded that the tests on English used by BIDE and those used by TTC are almost equally valid.

**Mathematics:** The hypothesis, that the two validity coefficients do not differ, is retained. Therefore, it may be concluded that the tests on Mathematics administered by BIDE and those administered by TTC are fairly equally valid.

**Geography:** The hypothesis, that the two validity coefficients do not differ, is retained. Hence it may be concluded that the tests on Geography used by BIDE and those used by TTC for their respective group of students are nearly equally valid.

**Science:** The hypothesis, that the two validity coefficients do not differ, is retained. It may therefore, be concluded that the tests on Science administered by BIDE and those administered by TTC are equally valid.

**Social Science:** The hypothesis, that the two validity coefficients do not differ, is retained. Hence it may be concluded that the tests on Social Science used by BIDE and those used by TTC are almost equally valid.

#### **Conclusions on content/construct validity of tests used by BIDE**

##### **Compulsory Subject**

**Principles of Education:** The mean and the mode are quite close to each other, even though the variance of the distribution of ratings is high enough. Hence it may be concluded that the content validity of the tests on principles of Education given by BIDE is of medium level.



**Educational Psychology:** The mean and the mode of the distribution of ratings are very close to each other, even though the variance is high. Therefore, it may be concluded that the content validity of the tests on Educational psychology used by BIDE is of medium level.

**History of Education:** High variance indicates heterogeneity of the ratings, but the mean and the mode of the distribution of ratings are very close to each other. It may therefore be concluded that the content validity of the tests on History of Education administered by BIDE is of medium level.

**Educational Evaluation and Guidance:** The mean and the mode of distribution are very close to each other, even though the variance of the distribution is quite high. Therefore, it may be concluded that the content validity of the tests on Educational Evaluation and Guidance given by BIDE is of medium level.

**Education and National Development:** Although the variance of distribution of the ratings is quite high, the mean and the mode are very close to each other. Hence it may be concluded that the content validity of the tests on Education and National Development used by BIDE is of medium level.

### Elective Subjects

**Bangle:** Even though the variance of the distribution of ratings is high, its mean and mode are very close to each other. It may therefore be concluded that the content validity of the tests on Bangle used by BIDE is of medium level.

**English:** The mean and the mode of the distribution of ratings are quite close to each other, even though the variance of the distribution is high. Therefore, it may be concluded that the content validity of the tests on English given by BIDE is of medium level.

**Mathematics:** The mean and the mode of the distribution of ratings are very close to each other, though the variance of the distribution is high. Hence it may be concluded that the content validity of the tests on Mathematics administered by BIDE is of medium level.

**Geography:** The mean and the mode of the distribution of ratings are very close to each other, even though the variance of the distribution is high. It may therefore be concluded that the content validity of the tests on Geography used by BIDE is of medium level.

**Science:** The mean and the mode of the distribution of ratings are very close to each other, although the variance of the distribution

is quite high. Therefore, it may be concluded that the tests on Science given by BIDE possess medium level of content validity.

**Social Science:** The mean and the mode of the distribution ratings are very close to each other, even though the variance of the distribution is high. Hence it may be concluded that the content validity of the tests on Social Science used by BIDE is of medium level.

#### Practical Teaching Aspect

**International Assessment:** The mean and the mode of the distribution are close to each other, even though the variance is quite high. Therefore, it may be concluded that the construct validity of the tests used by BIDE for Internal Assessment is of low level.

**Viva-Voce Examination:** The mean and the mode of the distribution are quite close to each other, even though the variance is high enough. Therefore, it may be concluded that the construct validity of the tests used by BIDE for Viva-voce examination is of low level.

**Practice Teaching:** The mean and the mode of the distribution are close to each other, even though the variance is very high. Therefore, it may be concluded that the construct validity of the tests used in Practice Teaching examination by BIDE is of medium level.



**Total Assessment of Achievement in Practical Teaching Aspect:** The mean and the mode of the distribution of ratings are close to each other, even though the variance is very high. It may therefore be concluded that the construct validity of the tests for Total Assessment of Achievement in Practical Teaching aspect used by BIDE is of low level.

**Conclusion on content/construct validity of tests used by TTC**

**Compulsory Subject**

**Principles of Education:** The mean of the distribution of ratings and the modal value of rating are very close to each other. Therefore, it may be concluded that the Content Validity of the tests on Principles of Education used by TTC is of medium level.

**Educational Psychology:** The mean and the mode of the distribution of ratings are very close to each other and the variance of the ratings is quite low. Hence it may be concluded that the tests on Educational Psychology given by TTC are of medium level of validity.

**History of Education:** The mean and the modal value of rating are close to each other, even though the variance is slight high. It may therefore be concluded that the content validity of the tests on History of Education administered by TTC is of high level.

**Educational Evaluation and Guidance:** The mean and the mode of the distribution of ratings for the tests on Educational Evaluation and Guidance are very close to each other, although the variance is quite high. Hence it may be concluded that the tests used by TTC possess medium level of content validity.

**Education and National Development:** The mean and the modal value of rating are very close to each other, even though the variance is moderately high. Therefore, it may be concluded that the Content Validity of the tests on Education and National Development given by TTC is of medium level.

**Elective Subject:**

**Bangle:** The mean and the mode of the distribution of ratings are very close to each other, even though the variance is slightly high. Therefore, it may be concluded that the Content validity of the tests on Bangle given by TTC is of medium level.

**English:** The mean and the modal value of rating are almost equal. The variance of the distribution is low. Hence it may be concluded that the content validity of the tests on English given by TTC is of medium level.

**Mathematics:** The mean and the mode of the distribution of ratings are nearly equal, even though the variance is moderately high. It may therefore be concluded that the content validity of the tests on Mathematics administered by TTC is of medium level.

**Geography:** The mean and the modal value of rating are very close to each other. The variance of the distribution of ratings is quite low. Therefore, it may be concluded that the content validity of the tests on Geography used by TTC is of high level.

**Science:** The mean and the mode of the distribution of ratings are almost equal, even though the variance is slight high. Therefore, it may be concluded that the Content Validity of the tests on Science given by TTC is of medium level.

**Social Science:** The mean and the modal value of rating are quite close to each other, although the variance is moderately high. Hence it may be concluded that the content validity of the tests on Social Science administered by TTC is of medium level.

#### Practical Teaching Aspect

**International Assessment:** The mean and the mode of the distribution are very close to each other, even though the variance is slightly high. Therefore, it may be concluded that the construct validity of the tests used by TTC for Internal Assessment is of medium level.

**Viva-Voce Examination:** The mean and the mode of the distribution are very close to each other, even though the variance is slightly high. It may therefore be concluded that the construct validity of the tests used by TTC for Viva-Voce examination is of medium level.



**Practice Teaching Aspects:** The mean and the mode of the distribution are close to each other, even though the variance is slightly high. Therefore, it may be concluded that the construct validity of the tests used in Practice Teaching examination by TTC is of medium level.

**Total Assessment of Achievement in Practical Teaching Aspects:** The mean and the mode of the distribution of ratings are very close to each other, even though the variance is slightly high. It may therefore be concluded that the construct validity of the tests for Total Assessment of Achievement in Practical Teaching Aspect used by TTC is of medium level.

### **Conclusions on comparison of content/construct validity**

#### **Compulsory Subject**

**Principles of Education:** The hypothesis of no difference between the two ratings of validity, is rejected. It may therefore, be concluded that the content validity of the tests on Principles of Education given by TTC is higher than that of the tests on the same Subject given by BIDE.

**Educational Psychology:** The hypothesis of no difference between the two ratings of validity, is rejected. Hence it may be concluded that the content validity of the tests on Educational Psychology used by TTC is higher than that of the tests used by BIDE.

**History of Education:** The hypothesis of no difference between the two ratings of validity, is rejected. Therefore, it may be concluded that the content validity of the tests on History of Education given by TTC is higher than that of the tests on the same Subject given by BIDE.

**Educational Evaluation and Guidance:** The hypothesis of no difference between the two ratings of validity, is retained. Hence it may be concluded that the content validity of the tests on Educational Evaluation and Guidance used by TTC and that of the tests on the same Subject used by BIDE are almost equal.

**Education and National Development:** The hypothesis of no difference between the two ratings of validity, is retained. Therefore, it may be concluded that the Content Validity of the tests on Education and National Development administered by TTC and by BIDE are almost equal.

#### Elective Subjects

**Bangla:** The hypothesis of no difference between the two ratings of validity, is retained. Hence it may be concluded that the Content validity of the tests on Bangla given by BIDE and those given by TTC are equal.

**English:** The hypothesis of no difference between the two ratings of validity, is retained. Therefore, it may be concluded that the

Content validity of the tests on English used by BIDE and those used by TTC are almost equal.

**Mathematics:** The hypothesis of no difference between the two ratings of validity, is rejected. It may therefore be concluded that the Content Validity of the tests on Mathematics administered by TTC is higher than that of the test on the same Subject administered by BIDE.

**Geography:** The hypothesis of no difference between the two ratings of validity, is rejected. Hence it may be concluded that the Content Validity of the tests on Geography used by TTC is higher than that of the tests on Geography used by BIDE.

**Science:** The hypothesis of no difference between the two ratings of validity, is retained. Therefore, it may be concluded that the Content validity of the tests on Science used by BIDE and that of the tests on Science used by TTC are almost equal.

**Social Science:** The hypothesis of no difference between the two ratings of validity, is rejected. Hence it may be concluded that the Content Validity of the tests on Social Science administered by TTC is higher than that of the tests on Social Science administered by BIDE.



### Practical Teaching Aspect

**Internal Assessment:** The hypothesis of no difference between the two ratings of validity is rejected. Hence it may be concluded that the construct validity of the tests used by TTC for Internal Assessment is higher than the tests used by BIDE for the same purpose.

**Viva-voce Examination:** The hypothesis of no difference between the two ratings of validity is rejected. Therefore, it may be concluded that the construct validity of the tests used by TTC for Viva-Voce examination is higher than that of the tests used by BIDE for the same purpose.

**Practice Teaching:** The hypothesis of no difference between the two ratings of validity is rejected. It may therefore be concluded that the construct validity of the tests for Practice Teaching examination used by TTC is higher than that of the tests used by BIDE.

**Total Assessment of Achievement in Practical Teaching Aspect:** The hypothesis of no difference between the ratings of validity is rejected. Hence it may be concluded that the construct validity of the tests for Total Assessment of Achievement in Practical Teaching aspects administered by TTC is higher than that of the tests administered by BIDE.

## RECOMMENDATIONS

From the analysis of data for the study it is found that the tests on all the Subject area i.e. five compulsory and six elective Subjects, Practical Teaching aspects and Total Assessment of Achievement administered by BIDE are sufficiently reliable. The tests on most of the Subject areas, i.e. Principles of Education, Educational Psychology, History of Education, Education and National Development, Bangla, Mathematics, Geography, Science, Social Science and Practical Teaching aspects administered by TTC are not sufficiently reliable. Only the tests on Educational Evaluation and Guidance, English and Total Assessment of Achievement administered by TTC are found to be sufficiently reliable.

Comparison between the reliability of the tests on the same Subject area given by BIDE and by TTC shows that only the tests on Educational Evaluation and Guidance, English and Geography are equally reliable. But for tests on other remaining Subject areas results show higher reliability in favour of BIDE. One of the reasons for the tests administered by BIDE being more reliable might be the types of tests BIDE used. For the assessment of achievement of its students BIDE used objective type tests for 80% marks and essay type tests for 20% marks of total marks allotted for each Subject area, whereas TTC used essay type tests for almost 100% marks of total marks allotted for each Subject area. To make its tests more reliable TTC should use objective type tests along

with essay type tests in a reasonable ratio according to the nature of the Subject.

From the results of the tests of significance regarding predictive validity of the tests administered by BIDE and by TTC it is found that all the tests of the two programmes under consideration are sufficiently valid and there is no difference between the tests used by BIDE and by TTC on the same Subject area in respect of predictive validity.

On the basis of the ratings made by experts the content validity of the tests on all the Subject areas used by BIDE are found to be of medium level. Tests used by TTC on History of Education and Geography are found to be of high level of content validity. Tests on other Subjects used by TTC are found to be of medium level of content validity.

Comparison between content validity of the tests given by BIDE and the tests given by TTC on the same Subject area shows that Subjects such as Educational Evaluation and Guidance, Education and National Development,

Bangla, English and Science are equally valid. But tests on Principles of Education, Educational Psychology, History of Education, Mathematics, Geography and Social Science administered by TTC are found to possess higher content validity than those



administered by BIDE. The difference is found because the variances of distributions of ratings for tests on these Subjects are higher in cases of tests given by BIDE than in cases of tests given by TTC. As the experts are drawn from the Teachers' Training Colleges there might be some bias towards TTC in ratings. However, BIDE authority should take measures to improve the content validity of their tests. Introduction of some structured question in each of the terminal examination may be of some help in this respect.

The construct validity of the tests used by BIDE for Internal Assessment, Viva-voce examination, Total Assessment of achievement in Practical Teaching aspects are found to be of low level, and that of tests for practice Teaching examination is found to be of medium level. Therefore, the tests for Internal Assessment and Viva-voce examination of BIDE should be redesigned to enhance their construct validity.

The construct validity of the tests for Internal Assessment, Viva-voce examination, Practice Teaching examination and Total Assessment of Achievement in Practical Teaching aspects administered by TTC are found to be of medium level.

Comparison between the construct validity of the tests for Internal Assessment, Viva-voce examinations, Practice Teaching examination and Total Assessment of Achievement in Practical Teaching Aspect shows that tests used by TTC possess higher

construct validity than the tests used by BIDE. For assessment of achievement in Practical Teaching Aspects of the programme, BIDE authority should pay more attention. Construct validity of the tests used in these areas needs to be improved. Instead of assessing the achievement of its students in Practice Teaching in a simulated classroom a real classroom should be used for the purpose. Besides, for Internal Assessment arrangement should be made to observe classroom teaching of the student by the tutors.

The above recommendations are made on the basis of the findings of the present study. This study is conducted with limited samples. Due to resource and time constraints, the researcher could not use elaborate methods of study and larger samples. Therefore, it is recommended that more studies should be conducted on teacher education programme in general and the examination system in particular, using larger samples and elaborate methods. On the basis of the findings of those studies more dependable recommendation could be made to increase the effectiveness of the programme.

**APPENDIX A**

**DETAILED MARKS OF THE SAMPLE OF  
STUDENTS OF BIDE**



## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
1	47.2	9	56.2	51.4	8	59.4	60.0	9	69.0	52.2	9	61.2	55.2	11	66.2
2	40.2	7	47.2	36.0	8	44.0	39.4	7	46.4	36.0	7	43.0	40.2	5	45.2
3	46.8	9	55.8	45.4	7	52.4	49.6	7	56.6	47.0	8	55.0	48.8	11	59.8
4	53.8	9	62.8	45.8	7	52.8	53.8	8	61.8	50.4	9	59.4	45.4	10	55.4
5	49.2	7	56.2	43.6	7	50.6	49.6	9	58.6	46.2	7	53.2	46.8	9	55.8
6	51.2	7	58.2	49.2	7	56.2	55.6	10	65.6	49.8	9	58.8	56.0	11	67.0
7	51.8	8	59.8	43.8	7	50.8	52.2	10	62.2	46.8	8	54.8	51.0	10	61.0
8	47.2	7	54.2	36.6	7	43.6	49.0	8	57.0	36.6	7	43.6	44.6	7	51.6
9	38.8	8	46.8	35.6	10	45.6	37.0	7	44.0	36.4	7	43.4	40.0	10	50.0
10	44.4	8	52.4	38.2	10	48.2	44.4	7	51.4	41.6	7	48.6	42.0	8	50.0
11	45.2	8	53.2	39.2	8	47.2	47.0	10	57.0	44.8	8	52.8	40.4	11	51.4
12	52.2	9	61.2	37.8	9	46.8	50.4	9	59.4	47.6	8	55.6	47.4	10	57.4
13	50.4	10	60.4	50.8	7	57.8	50.2	11	61.2	47.8	7	54.8	44.8	8	52.8
14	43.6	7	50.6	31.4	7	38.4	37.4	8	45.4	35.0	7	42.0	44.6	8	52.6
15	57.0	11	68.0	47.2	10	57.2	60.0	10	70.0	55.8	10	65.8	51.6	11	62.6
16	47.6	8	55.6	40.2	7	47.2	41.4	7	48.4	39.8	8	47.8	45.6	9	54.6
17	50.2	8	58.2	47.0	7	54.0	55.4	10	65.4	52.8	10	62.8	48.6	12	60.6
18	39.6	8	47.6	34.0	7	41.0	39.0	10	49.0	35.2	11	46.2	38.0	10	48.0
19	56.2	7	63.2	44.6	4	48.6	57.4	7	64.4	50.8	7	57.8	50.2	8	58.2
20	42.4	8	50.4	33.2	8	41.2	41.0	11	52.0	40.2	7	47.2	42.4	9	51.4
21	39.8	8	47.8	32.6	7	39.6	37.2	8	45.2	35.2	7	42.2	42.2	8	50.2
22	41.2	10	51.2	34.6	7	41.6	38.4	9	47.4	36.8	7	43.8	39.2	10	49.2
23	54.8	8	62.8	44.6	7	51.6	51.2	9	60.2	53.0	10	63.0	53.2	10	63.2
24	37.2	9	46.2	32.8	7	39.8	37.0	7	44.0	33.2	8	41.2	38.4	7	45.4
25	43.4	8	51.4	34.8	7	41.8	42.0	7	49.0	36.6	7	43.6	39.4	9	48.4
26	57.6	9	66.6	52.4	7	59.4	58.0	10	68.0	54.8	10	64.8	50.8	7	57.8
27	51.4	7	58.4	44.8	7	51.8	47.2	8	55.2	46.4	9	55.4	51.6	9	60.6

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
28	43.0	7	50.0	33.2	8	41.2	43.6	7	50.6	34.8	8	42.8	43.4	7	50.4
29	44.2	7	51.2	35.6	7	42.6	42.2	7	49.2	37.0	8	45.0	40.4	7	47.4
30	52.6	8	60.6	44.0	7	51.0	48.2	12	60.2	49.4	8	57.4	51.6	11	62.6
31	44.2	7	51.2	33.6	7	40.6	46.4	12	58.4	41.0	9	50.0	42.6	9	51.6
32	53.0	10	63.0	47.2	7	54.2	55.8	12	67.8	51.6	10	61.6	51.8	12	63.8
33	36.0	8	44.0	29.0	7	36.0	34.8	9	43.8	31.4	8	39.4	41.8	5	46.8
34	50.0	11	61.0	40.2	7	47.2	48.4	9	57.4	46.0	8	54.0	43.8	10	53.8
35	52.6	9	61.6	38.8	9	47.8	48.4	12	60.4	43.2	7	50.2	49.2	9	58.2
36	46.2	8	54.2	36.2	7	43.2	39.8	7	46.8	39.4	9	48.4	44.8	8	52.8
37	52.0	10	62.0	45.6	8	53.6	62.0	8	70.0	51.8	8	59.8	49.8	7	56.8
38	49.8	10	59.8	40.0	8	48.0	47.2	9	56.2	45.6	9	54.6	47.2	11	58.2
39	53.8	7	60.8	43.4	9	52.4	54.8	8	62.8	39.4	9	48.4	46.8	8	54.8
40	45.4	9	54.4	36.0	7	43.0	46.8	11	57.8	40.4	8	48.4	43.6	11	54.6
41	45.8	9	54.8	41.8	8	49.8	47.2	10	57.2	44.8	7	51.8	48.4	11	59.4
42	50.2	11	61.2	37.0	8	45.0	47.0	7	54.0	41.4	9	50.4	46.6	8	54.6
43	56.0	8	64.0	46.2	7	53.2	57.6	12	69.6	55.4	8	63.4	48.8	8	56.8
44	54.8	9	63.8	50.6	7	57.6	56.0	8	64.0	48.0	7	55.0	48.8	7	55.8
45	42.0	9	51.0	39.6	7	46.6	41.8	7	48.8	37.2	7	44.2	44.4	7	51.4
46	56.6	9	65.6	55.0	7	62.0	64.6	9	73.6	55.0	13	68.0	57.0	11	68.0
47	51.2	8	59.2	43.8	10	53.8	60.2	10	70.2	47.2	10	57.2	43.2	10	53.2
48	55.4	7	62.4	47.0	7	54.0	61.2	8	69.2	59.0	7	66.0	53.2	7	60.2
49	57.6	9	66.6	51.2	8	59.2	64.6	10	74.6	58.2	7	65.2	55.4	10	65.4
50	52.0	9	61.0	45.6	7	52.6	54.8	10	64.8	49.8	8	57.8	47.2	10	57.2
51	50.2	8	58.2	44.8	7	51.8	54.6	7	61.6	41.2	9	50.2	45.4	10	55.4
52	44.2	7	51.2	35.4	8	43.4	44.0	10	54.0	40.0	7	47.0	41.2	8	49.2
53	47.2	5	52.2	36.0	7	43.0	45.0	7	52.0	34.6	5	39.6	40.0	5	45.0
54	50.6	10	60.6	39.4	7	46.4	53.4	11	64.4	50.4	9	59.4	50.8	11	61.8

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl. N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
55	52.0	11	63.0	41.8	8	49.8	50.0	8	58.0	48.0	10	58.0	47.0	10	57.0
56	38.8	10	48.8	28.0	7	35.0	43.0	11	54.0	32.0	7	39.0	45.4	10	55.4
57	50.4	10	60.4	45.4	7	52.4	53.0	10	63.0	42.6	8	50.6	53.8	9	62.8
58	47.8	9	56.8	39.2	7	46.2	42.0	10	52.0	45.8	7	52.8	42.8	8	50.8
59	48.2	10	58.2	37.8	7	44.8	45.8	10	55.8	40.8	8	48.8	46.0	8	54.0
60	51.4	8	59.4	47.6	7	54.6	54.8	11	65.8	48.8	9	57.8	48.6	11	59.6
61	48.0	8	56.0	35.2	7	42.2	42.6	9	51.6	39.2	8	47.2	41.2	10	51.2
62	50.8	7	57.8	43.6	8	51.6	53.0	7	60.0	48.8	12	60.8	50.0	7	57.0
63	39.6	7	46.6	37.0	9	46.0	37.8	8	45.8	38.8	8	46.8	39.0	10	49.0
64	53.6	11	64.6	40.8	7	47.8	46.0	8	54.0	44.0	7	51.0	49.4	11	60.4
65	43.6	10	53.6	34.6	8	42.6	40.8	8	48.8	37.2	7	44.2	43.2	10	53.2
66	53.0	9	62.0	47.2	7	54.2	55.8	12	67.8	48.0	7	55.0	49.8	11	60.8
67	56.4	9	65.4	45.6	7	52.6	60.6	11	71.6	55.4	10	65.4	52.4	10	62.4
68	50.8	10	60.8	40.0	7	47.0	50.6	13	63.6	43.0	9	52.0	50.6	9	59.6
69	46.6	10	56.6	35.8	7	42.8	44.6	11	55.6	41.4	8	49.4	40.4	9	49.4
70	38.8	7	45.8	35.2	5	40.2	44.2	8	52.2	37.2	10	47.2	42.0	7	49.0
71	48.4	7	55.4	43.2	8	51.2	54.0	8	62.0	46.6	8	54.6	41.4	9	50.4
72	56.2	9	65.2	51.6	9	60.6	56.2	11	67.2	47.4	9	56.4	55.2	11	66.2
73	53.0	10	63.0	49.6	9	58.6	55.2	11	66.2	47.4	10	57.4	54.0	12	66.0
74	51.6	10	61.6	44.8	7	51.8	53.2	11	64.2	46.4	13	59.4	51.6	11	62.6
75	60.8	10	70.8	52.2	7	59.2	64.4	14	78.4	47.8	7	54.8	56.6	11	67.6
76	38.4	7	45.4	29.0	4	33.0	41.6	8	49.6	31.6	7	38.6	40.6	7	47.6
77	40.0	7	47.0	32.0	3	35.0	35.4	8	43.4	33.2	5	38.2	45.2	7	52.2
78	54.8	7	61.8	47.0	7	54.0	59.4	10	69.4	46.8	9	55.8	50.4	10	60.4
79	52.4	7	59.4	47.4	8	55.4	54.0	11	65.0	40.4	8	48.4	45.8	9	54.8
80	53.6	10	63.6	46.2	7	53.2	54.0	10	64.0	50.2	10	60.2	51.6	12	63.6
81	48.6	8	56.6	43.4	7	50.4	52.4	8	60.4	47.2	8	55.2	52.8	10	62.8



## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
82	52.4	7	59.4	41.2	8	49.2	49.6	9	58.6	38.4	10	48.4	49.2	9	58.2
83	54.8	7	61.8	47.2	7	54.2	55.4	9	64.4	51.6	9	60.6	54.8	9	63.8
84	47.8	4	51.8	44.6	7	51.6	43.8	7	50.8	38.0	7	45.0	41.4	5	46.4
85	46.4	7	53.4	35.0	7	42.0	43.6	9	52.6	37.2	7	44.2	38.8	7	45.8
86	46.4	8	54.4	43.8	7	50.8	43.2	9	52.2	38.0	7	45.0	47.4	10	57.4
87	40.0	7	47.0	34.4	7	41.4	39.0	8	47.0	38.0	7	45.0	37.0	11	48.0
88	61.0	7	68.0	55.4	8	63.4	64.8	9	73.8	57.4	9	66.4	56.6	12	68.6
89	49.4	7	56.4	43.4	8	51.4	47.0	9	56.0	44.0	8	52.0	50.6	11	61.6
90	57.2	9	66.2	55.6	7	62.6	64.6	9	73.6	60.8	7	67.8	58.0	10	68.0
91	49.0	7	56.0	40.8	7	47.8	49.6	10	59.6	41.2	8	49.2	48.2	11	59.2
92	49.2	9	58.2	43.2	9	52.2	49.0	9	58.0	46.4	10	56.4	46.4	9	55.4
93	36.8	7	43.8	29.4	7	36.4	36.6	8	44.6	27.8	7	34.8	37.2	7	44.2
94	55.8	8	63.8	49.2	7	56.2	57.8	12	69.8	52.8	7	59.8	55.2	8	63.2
95	49.4	8	57.4	37.2	7	44.2	41.4	9	50.4	38.6	8	46.6	44.2	10	54.2
96	38.4	7	45.4	30.6	8	38.6	42.4	7	49.4	36.6	7	43.6	41.6	9	50.6
97	46.0	7	53.0	40.0	7	47.0	43.0	7	50.0	38.4	7	45.4	45.6	9	54.6
98	44.8	7	51.8	36.0	7	43.0	43.2	8	51.2	35.6	7	42.6	41.2	8	49.2
99	41.0	8	49.0	34.6	7	41.6	41.2	8	49.2	37.0	7	44.0	45.8	8	53.8
100	39.6	9	48.6	35.8	5	40.8	40.6	9	49.6	32.6	7	39.6	47.2	7	54.2
101	55.4	10	65.4	46.4	7	53.4	54.8	8	62.8	48.6	7	55.6	52.4	9	61.4
102	50.8	9	59.8	50.4	7	57.4	56.4	9	65.4	43.6	8	51.6	47.8	12	59.8
103	55.2	12	67.2	49.0	7	56.0	54.4	12	66.4	46.4	8	54.4	50.4	10	60.4
104	47.8	11	58.8	44.6	7	51.6	48.4	11	59.4	39.4	8	47.4	45.4	12	57.4
105	52.2	11	63.2	46.6	9	55.6	58.8	11	69.8	51.6	11	62.6	51.8	12	63.8
106	42.2	7	49.2	35.4	7	42.4	41.8	10	51.8	37.8	8	45.8	38.0	10	48.0
107	37.4	5	42.4	32.8	7	39.8	39.8	8	47.8	33.8	7	40.8	36.6	7	43.6
108	46.8	8	54.8	34.4	9	43.4	45.8	9	54.8	48.0	8	56.0	45.4	10	55.4

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
109	38.8	7	45.8	27.2	7	34.2	33.8	9	42.8	37.4	8	45.4	34.8	10	44.8
110	53.2	8	61.2	43.0	7	50.0	50.2	11	61.2	45.6	9	54.6	54.2	11	65.2
111	59.2	7	66.2	53.0	7	60.0	57.2	10	67.2	45.0	4	49.0	54.4	11	65.4
112	47.2	9	56.2	37.2	7	44.2	49.2	9	58.2	40.2	9	49.2	42.2	10	52.2
113	60.0	11	71.0	58.0	11	69.0	67.0	10	77.0	59.2	8	67.2	61.6	12	73.6
114	41.8	11	52.8	36.8	7	43.8	42.4	10	52.4	45.8	7	52.8	45.6	12	57.6
115	50.4	10	60.4	40.2	8	48.2	53.8	11	64.8	54.0	8	62.0	50.6	10	60.6
116	49.8	12	61.8	41.2	7	48.2	53.0	10	63.0	47.6	12	59.6	45.0	13	58.0
117	53.2	7	60.2	52.6	7	59.6	55.2	8	63.2	49.6	9	58.6	54.4	10	64.4
118	46.2	9	55.2	38.4	7	45.4	43.6	9	52.6	39.8	9	48.8	47.6	10	57.6
119	51.2	7	58.2	40.6	7	47.6	53.0	7	60.0	41.0	8	49.0	50.0	11	61.0
120	42.4	9	51.4	39.8	7	46.8	40.2	8	48.2	36.4	7	43.4	45.2	10	55.2
121	44.4	9	53.4	41.8	7	48.8	47.0	11	58.0	39.2	7	46.2	42.2	12	54.2
122	53.4	10	63.4	42.2	7	49.2	50.8	7	57.8	48.0	7	55.0	46.8	10	56.8
123	55.5	10	65.5	43.6	7	50.6	55.0	8	63.0	48.8	7	55.8	51.2	10	61.2
124	43.4	9	52.4	37.2	7	44.2	42.0	10	52.0	36.2	7	43.2	46.0	9	55.0
125	45.6	12	57.6	32.6	7	39.6	50.8	11	61.8	38.8	8	46.8	49.0	10	59.0
126	52.2	10	62.2	48.2	8	56.2	54.8	10	64.8	46.6	7	53.6	52.0	9	61.0
127	46.4	7	53.4	38.6	10	48.6	44.2	7	51.2	43.0	8	51.0	43.8	7	50.8
128	51.8	9	60.8	45.4	7	52.4	52.0	9	61.0	48.4	8	56.4	48.4	10	58.4
129	51.2	7	58.2	39.0	7	46.0	51.0	10	61.0	39.4	9	48.4	49.0	7	56.0
130	52.0	9	61.0	45.0	9	54.0	51.8	9	60.8	43.0	8	51.0	46.2	10	56.2
131	44.8	9	53.8	34.6	7	41.6	45.8	9	54.8	39.8	7	46.8	44.6	8	52.6
132	46.0	7	53.0	37.6	8	45.6	46.0	10	56.0	39.2	7	46.2	42.2	9	51.2
133	49.4	12	61.4	46.6	8	54.6	49.4	10	59.4	42.2	9	51.2	49.6	12	61.6
134	49.4	10	59.4	42.4	7	49.4	45.6	7	52.6	40.8	7	47.8	47.8	8	55.8
135	49.2	7	56.2	39.6	7	46.6	45.4	8	53.4	40.2	7	47.2	43.4	8	51.4

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
136	56.8	9	65.8	51.8	7	58.8	59.8	10	69.8	50.4	8	58.4	53.4	9	62.4
137	40.4	7	47.4	39.2	7	46.2	45.6	7	52.6	35.4	5	40.4	41.6	7	48.6
138	42.8	10	52.8	37.2	7	44.2	37.4	11	48.4	37.2	8	45.2	45.2	11	56.2
139	57.4	9	66.4	53.2	9	62.2	62.4	7	69.4	58.0	13	71.0	53.0	10	63.0
140	56.4	8	64.4	45.4	7	52.4	59.4	10	69.4	53.6	8	61.6	48.8	11	59.8
141	39.6	8	47.6	34.8	8	42.8	47.2	7	54.2	44.4	7	51.4	45.0	10	55.0
142	48.6	8	56.6	37.2	7	44.2	49.0	10	59.0	46.2	7	53.2	43.2	13	56.2
143	44.6	7	51.6	37.8	7	44.8	47.0	7	54.0	40.6	7	47.6	44.8	11	55.8
144	40.2	3	43.2	36.0	8	44.0	39.8	8	47.8	32.8	8	40.8	41.0	8	49.0
145	53.4	11	64.4	46.8	8	54.8	58.6	13	71.6	52.2	8	60.2	51.8	11	62.8
146	44.8	9	53.8	40.0	8	48.0	48.8	7	55.8	44.2	8	52.2	43.4	10	53.4
147	52.0	8	60.0	51.6	7	58.6	56.4	8	64.4	51.4	7	58.4	57.6	8	65.6
148	48.4	7	55.4	40.0	7	47.0	49.0	9	58.0	45.8	8	53.8	45.4	8	53.4
149	47.2	8	55.2	39.8	7	46.8	46.2	10	56.2	38.0	7	45.0	42.2	11	53.2
150	54.4	8	62.4	42.8	7	49.8	53.6	9	62.6	51.6	7	58.6	46.2	9	55.2
151	41.6	7	48.6	35.6	7	42.6	37.6	8	45.6	37.6	7	44.6	42.0	10	52.0
152	42.8	7	49.8	35.6	8	43.6	39.6	9	48.6	33.6	7	40.6	44.2	11	55.2
153	51.2	7	58.2	44.0	8	52.0	48.8	8	56.8	38.8	7	45.8	55.6	10	65.6
154	53.8	9	62.8	46.6	7	53.6	54.0	8	62.0	43.6	7	50.6	48.4	8	56.4
155	57.6	9	66.6	49.2	7	56.2	54.4	8	62.4	49.2	7	56.2	51.8	10	61.8
156	52.2	11	63.2	49.0	10	59.0	55.6	11	66.6	51.0	7	58.0	54.6	13	67.6
157	47.2	7	54.2	36.0	7	43.0	43.8	8	51.8	38.6	7	45.6	46.6	10	56.6
158	52.8	10	62.8	44.6	8	52.6	54.6	8	62.6	51.8	11	62.8	51.0	11	62.0
159	44.2	10	54.2	43.0	7	50.0	50.0	7	57.0	43.8	9	52.8	47.4	10	57.4
160	44.6	7	51.6	35.6	7	42.6	39.8	10	49.8	34.8	9	43.8	41.0	13	54.0
161	49.8	9	58.8	38.2	7	45.2	45.4	8	53.4	43.8	7	50.8	43.6	11	54.6
162	51.4	11	62.4	45.6	10	55.6	52.4	9	61.4	43.4	10	53.4	49.0	9	58.0



## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
163	50.2	9	59.2	45.2	8	53.2	47.8	9	56.8	37.6	10	47.6	51.8	7	58.8
164	48.0	11	59.0	42.0	8	50.0	46.8	10	56.8	41.4	7	48.4	53.2	8	61.2
165	46.2	10	56.2	37.4	7	44.4	46.8	9	55.8	36.6	8	44.6	42.6	7	49.6
166	52.8	9	61.8	48.6	7	55.6	52.8	9	61.8	46.6	8	54.6	52.6	7	59.6
167	53.6	7	60.6	48.6	4	52.6	56.0	7	63.0	48.4	7	55.4	48.6	7	55.6
168	49.2	12	61.2	38.0	9	47.0	42.8	10	52.8	36.2	7	43.2	46.8	8	54.8
169	55.4	11	66.4	47.4	9	56.4	55.6	8	63.6	53.8	11	64.8	53.2	9	62.2
170	43.0	7	50.0	37.4	7	44.4	48.2	7	55.2	42.8	8	50.8	44.0	5	49.0
171	49.0	11	60.0	44.0	7	51.0	46.4	8	54.4	44.6	7	51.6	50.8	7	57.8
172	41.2	10	51.2	35.6	7	42.6	33.6	9	42.6	33.4	7	40.4	41.4	8	49.4
173	44.2	7	51.2	35.4	5	40.4	50.2	7	57.2	44.8	7	51.8	40.4	7	47.4
174	44.8	11	55.8	37.4	7	44.4	40.2	8	48.2	35.6	8	43.6	45.0	7	52.0
175	49.2	9	58.2	38.8	7	45.8	45.0	8	53.0	41.8	7	48.8	43.8	7	50.8
176	51.8	10	61.8	45.2	9	54.2	52.6	10	62.6	47.0	11	58.0	49.4	11	60.4
177	42.0	9	51.0	35.8	8	43.8	46.0	8	54.0	36.4	9	45.4	41.4	7	48.4
178	47.0	10	57.0	46.0	9	55.0	48.2	10	58.2	37.2	7	44.2	44.6	8	52.6
179	37.4	9	46.4	32.2	7	39.2	40.8	7	47.8	31.6	8	39.6	40.2	7	47.2
180	42.8	9	51.8	39.6	7	46.6	45.0	10	55.0	33.8	8	41.8	40.4	7	47.4
181	41.2	9	50.2	34.8	7	41.8	42.4	9	51.4	40.8	7	47.8	39.6	7	46.6
182	49.0	11	60.0	44.2	8	52.2	48.0	9	57.0	41.4	7	48.4	44.8	7	51.8
183	48.4	11	59.4	39.8	7	46.8	45.0	10	55.0	36.8	10	46.8	47.2	9	56.2
184	48.8	10	58.8	41.0	7	48.0	45.6	9	54.6	36.0	7	43.0	46.2	8	54.2
185	40.6	8	48.6	31.4	7	38.4	33.8	8	41.8	34.8	7	41.8	39.0	7	46.0
186	44.6	7	51.6	33.4	5	38.4	36.2	8	44.2	38.0	11	49.0	38.4	7	45.4
187	51.2	7	58.2	36.2	8	44.2	50.2	9	59.2	42.6	10	52.6	44.8	7	51.8
188	54.6	7	61.6	45.8	8	53.8	49.6	9	58.6	47.0	9	56.0	49.8	7	56.8
189	53.0	7	60.0	52.2	7	59.2	56.2	8	64.2	47.0	9	56.0	51.8	8	59.8

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
190	57.0	9	66.0	51.0	7	58.0	60.8	9	69.8	51.6	8	59.6	57.4	7	64.4
191	53.4	9	62.4	48.8	7	55.8	60.4	10	70.4	56.6	10	66.6	50.0	7	57.0
192	53.6	9	62.6	47.0	7	54.0	56.2	8	64.2	48.8	8	56.8	52.0	7	59.0
193	53.0	10	63.0	49.6	8	57.6	56.0	10	66.0	48.6	10	58.6	53.4	8	61.4
194	54.8	9	63.8	43.8	7	50.8	53.6	8	61.6	54.8	9	63.8	49.2	7	56.2
195	41.0	8	49.0	36.4	7	43.4	40.2	8	48.2	34.8	9	43.8	40.8	7	47.8
196	53.2	8	61.2	55.2	7	62.2	55.0	11	66.0	54.4	8	62.4	54.8	7	61.8
197	42.0	7	49.0	35.4	7	42.4	35.4	10	45.4	30.8	7	37.8	37.0	7	44.0
198	47.8	7	54.8	46.4	7	53.4	53.4	9	62.4	39.0	8	47.0	43.2	7	50.2
199	42.8	7	49.8	44.6	8	52.6	45.0	8	53.0	38.4	10	48.4	44.0	7	51.0
200	55.4	8	63.4	49.4	7	56.4	60.2	9	69.2	53.8	11	64.8	58.6	7	65.6
201	60.2	7	67.2	53.4	7	60.4	59.0	10	69.0	57.6	7	64.6	51.8	7	58.8
202	41.4	7	48.4	36.6	7	43.6	38.4	7	45.4	33.2	7	40.2	37.8	5	42.8
203	46.0	7	53.0	37.4	7	44.4	44.8	8	52.8	41.4	7	48.4	45.6	7	52.6
204	35.2	7	42.2	40.8	7	47.8	45.8	9	54.8	41.4	7	48.4	45.2	7	52.2
205	52.8	7	59.8	45.6	7	52.6	58.2	11	69.2	48.6	10	58.6	49.8	7	56.8
206	52.0	7	59.0	47.2	7	54.2	48.6	8	56.6	47.8	9	56.8	47.8	8	55.8
207	53.8	9	62.8	52.0	8	60.0	58.6	11	69.6	53.4	10	63.4	54.8	7	61.8
208	49.8	9	58.8	50.4	9	59.4	58.4	9	67.4	51.0	9	60.0	54.4	7	61.4
209	52.0	7	59.0	43.6	9	52.6	54.0	7	61.0	48.4	8	56.4	47.4	7	54.4
210	48.8	8	56.8	38.4	8	46.4	45.0	9	54.0	40.8	7	47.8	42.8	7	49.8
211	55.0	8	63.0	43.2	7	50.2	50.0	9	59.0	54.4	7	61.4	48.8	7	55.8
212	51.8	8	59.8	43.6	7	50.6	56.2	10	66.2	42.6	9	51.6	52.0	8	60.0
213	57.2	10	67.2	48.0	7	55.0	65.8	10	75.8	53.0	11	64.0	53.2	7	60.2
214	42.8	10	52.8	39.2	7	46.2	42.6	8	50.6	37.2	8	45.2	44.4	7	51.4
215	45.8	7	52.8	41.6	7	48.6	43.2	10	53.2	36.6	9	45.6	43.2	7	50.2
216	44.4	9	53.4	33.2	7	40.2	42.2	9	51.2	39.8	7	46.8	41.2	7	48.2

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Bsy	Tot	Obj	Bsy	Tot	Obj	Bsy	Tot	Obj	Bsy	Tot	Obj	Bsy	Tot
217	46.4	7	53.4	40.8	10	50.8	44.4	7	51.4	36.4	8	44.4	47.8	7	54.8
218	42.0	7	49.0	38.0	7	45.0	42.0	7	49.0	39.4	9	48.4	45.0	7	52.0
219	37.6	5	42.6	29.6	7	36.6	36.4	8	44.4	34.6	7	41.6	40.2	7	47.2
220	52.0	10	62.0	41.4	7	48.4	49.8	10	59.8	40.0	9	49.0	50.8	7	57.8
221	48.4	12	60.4	35.0	7	42.0	46.6	8	54.6	39.4	9	48.4	52.4	8	60.4
222	39.6	7	46.6	32.8	7	39.8	34.8	7	41.8	37.0	8	45.0	37.8	7	44.8
223	53.6	11	64.6	49.0	7	56.0	59.8	9	68.8	48.2	11	59.2	51.6	7	58.6
224	36.2	10	46.2	31.4	7	38.4	34.6	9	43.6	32.0	8	40.0	42.8	7	49.8
225	48.0	9	57.0	40.2	7	47.2	47.0	9	56.0	42.6	7	49.6	47.6	7	54.6
226	58.8	12	70.8	56.4	7	63.4	62.8	10	72.8	62.2	12	74.2	57.6	7	64.6
227	44.0	10	54.0	43.0	7	50.0	47.4	9	56.4	40.6	8	48.6	48.4	7	55.4
228	45.4	11	56.4	39.2	8	47.2	47.6	7	54.6	36.2	10	46.2	38.8	7	45.8
229	42.4	10	52.4	34.0	10	44.0	40.4	7	47.4	41.8	7	48.8	46.2	7	53.2
230	54.8	10	64.8	47.2	7	54.2	59.4	12	71.4	51.4	11	62.4	51.8	12	63.8
231	47.0	9	56.0	36.8	8	44.8	51.2	11	62.2	44.2	11	55.2	49.4	7	56.4
232	54.8	9	63.8	43.4	9	52.4	50.0	8	58.0	41.0	8	49.0	49.6	7	56.6
233	47.8	10	57.8	41.8	9	50.8	44.0	8	52.0	38.2	10	48.2	44.4	8	52.4
234	47.8	9	56.8	43.2	7	50.2	48.6	7	55.6	46.4	13	59.4	43.6	7	50.6
235	41.4	10	51.4	35.8	7	42.8	33.4	9	42.4	39.4	9	48.4	39.2	8	47.2
236	41.8	7	48.8	38.2	7	45.2	46.8	8	54.8	40.4	14	54.4	41.0	7	48.0
237	47.4	11	58.4	41.4	7	48.4	43.8	11	54.8	36.6	7	43.6	48.8	8	56.8
238	45.6	8	53.6	39.6	7	46.6	44.0	9	53.0	37.0	9	46.0	44.4	7	51.4
239	47.6	7	54.6	38.0	7	45.0	42.4	9	51.4	36.2	9	45.2	49.8	7	56.8
240	62.6	11	73.6	52.8	7	59.8	61.0	7	68.0	50.8	7	57.8	53.6	7	60.6
241	51.4	10	61.4	41.2	9	50.2	54.8	9	63.8	44.6	11	55.6	49.8	7	56.8
242	49.6	9	58.6	46.6	7	53.6	51.4	7	58.4	44.2	9	53.2	47.2	7	54.2
243	45.0	9	54.0	36.6	7	43.6	46.2	8	54.2	41.2	10	51.2	43.6	7	50.6



## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
244	46.4	8	54.4	38.0	7	45.0	49.4	9	58.4	44.4	8	52.4	49.2	5	54.2
245	44.2	7	51.2	37.2	10	47.2	42.4	11	53.4	36.4	11	47.4	39.2	12	51.2
246	56.2	11	67.2	49.4	9	58.4	56.6	13	69.6	44.6	11	55.6	53.0	12	65.0
247	46.4	8	54.4	41.2	7	48.2	47.8	7	54.8	44.4	11	55.4	49.6	7	56.6
248	42.8	11	53.8	42.4	10	52.4	43.8	8	51.8	34.8	7	41.8	47.8	7	54.8
249	51.8	11	62.8	45.8	7	52.8	54.8	9	63.8	55.8	14	69.8	56.6	10	66.6
250	43.4	10	53.4	36.6	7	43.6	35.6	10	45.6	41.4	7	48.4	45.0	7	52.0
251	58.2	8	66.2	50.2	7	57.2	62.2	7	69.2	51.6	8	59.6	55.2	7	62.2
252	57.8	11	68.8	52.0	7	59.0	58.2	13	71.2	51.2	9	60.2	52.4	10	62.4
253	58.2	10	68.2	49.2	7	56.2	57.6	11	68.6	51.2	7	58.2	55.2	7	62.2
254	50.0	7	57.0	43.8	7	50.8	55.8	10	65.8	47.6	7	54.6	47.2	7	54.2
255	52.2	9	61.2	52.2	10	62.2	57.6	9	66.6	50.0	9	59.0	52.6	10	62.6
256	47.4	8	55.4	35.2	5	40.2	43.8	8	51.8	41.2	9	50.2	44.6	5	49.6
257	46.0	9	55.0	36.8	7	43.8	47.6	8	55.6	37.8	9	46.8	45.6	7	52.6
258	41.4	9	50.4	31.2	7	38.2	37.4	7	44.4	39.0	7	46.0	45.2	7	52.2
259	54.6	9	63.6	48.8	10	58.8	60.8	8	68.8	47.2	8	55.2	46.4	7	53.4
260	47.6	8	55.6	37.8	8	45.8	43.8	9	52.8	41.8	11	52.8	48.0	7	55.0
261	45.8	7	52.8	38.6	9	47.6	39.0	9	48.0	37.0	10	47.0	46.2	7	53.2
262	51.4	7	58.4	49.6	8	57.6	57.8	8	65.8	55.0	12	67.0	56.4	7	63.4
263	47.8	8	55.8	49.2	7	56.2	48.8	7	55.8	36.6	7	43.6	50.0	7	57.0
264	45.4	10	55.4	36.0	7	43.0	44.8	9	53.8	38.8	7	45.8	43.2	7	50.2
265	41.0	11	52.0	33.4	12	45.4	37.6	10	47.6	36.2	10	46.2	38.6	9	47.6
266	56.4	11	67.4	53.8	12	65.8	64.0	11	75.0	51.4	13	64.4	53.2	8	61.2
267	55.6	13	68.6	45.6	13	58.6	64.4	12	76.4	55.2	13	68.2	53.4	12	65.4
268	50.4	9	59.4	46.0	7	53.0	52.2	11	63.2	41.0	10	51.0	52.8	7	59.8
269	49.8	9	58.8	42.0	8	50.0	53.2	9	62.2	48.0	10	58.0	51.0	7	58.0
270	45.8	8	53.8	41.0	7	48.0	48.6	8	56.6	39.2	8	47.2	47.0	7	54.0

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Bsy	Tot	Obj	Bsy	Tot	Obj	Bsy	Tot	Obj	Bsy	Tot	Obj	Bsy	Tot
271	46.0	8	54.0	43.2	8	51.2	50.6	8	58.6	44.4	9	53.4	47.0	7	54.0
272	47.2	7	54.2	38.8	7	45.8	48.0	7	55.0	42.8	8	50.8	44.4	7	51.4
273	46.2	8	54.2	35.4	9	44.4	41.4	10	51.4	35.8	7	42.8	44.6	7	51.6
274	56.4	8	64.4	52.8	12	64.8	57.0	11	68.0	54.2	10	64.2	56.4	7	63.4
275	50.6	8	58.6	47.2	10	57.2	54.6	9	63.6	43.8	8	51.8	46.8	7	53.8
276	52.2	8	60.2	49.0	9	58.0	54.6	9	63.6	42.6	10	52.6	52.8	7	59.8
277	45.0	8	53.0	39.6	7	46.6	49.0	9	58.0	39.6	12	51.6	47.8	8	55.8
278	53.0	8	61.0	47.2	9	56.2	56.6	9	65.6	44.2	7	51.2	50.6	7	57.6
279	50.0	9	59.0	45.4	7	52.4	50.8	7	57.8	45.6	8	53.6	48.6	5	53.6
280	51.2	7	58.2	44.6	7	51.6	50.0	7	57.0	39.0	5	44.0	45.2	7	52.2
281	47.2	7	54.2	36.2	7	43.2	47.8	7	54.8	40.0	9	49.0	44.2	7	51.2
282	41.0	7	48.0	36.2	7	43.2	37.8	8	45.8	35.4	7	42.4	38.6	6	44.6
283	45.0	8	53.0	40.4	7	47.4	43.0	8	51.0	36.4	10	46.4	44.2	7	51.2
284	49.2	7	56.2	40.4	5	45.4	48.8	7	55.8	39.2	5	44.2	47.2	5	52.2
285	55.2	11	66.2	50.0	9	59.0	60.4	10	70.4	49.6	12	61.6	54.4	11	65.4
286	51.2	8	59.2	46.4	7	53.4	54.4	9	63.4	51.2	12	63.2	45.0	7	52.0
287	46.2	8	54.2	38.8	11	49.8	49.4	9	58.4	48.0	10	58.0	48.2	7	55.2
288	57.0	9	66.0	49.8	10	59.8	59.4	9	68.4	49.2	9	58.2	52.2	7	59.2
289	50.8	7	57.8	39.0	7	46.0	47.8	7	54.8	36.4	7	43.4	49.6	8	57.6
290	51.4	8	59.4	42.4	7	49.4	46.6	10	56.6	41.0	10	51.0	52.2	7	59.2
291	48.8	11	59.8	41.2	8	49.2	46.0	10	56.0	36.8	8	44.8	51.2	11	62.2
292	57.0	9	66.0	51.2	11	62.2	55.4	8	63.4	50.4	8	58.4	54.8	7	61.8
293	47.6	9	56.6	34.0	9	43.0	48.6	7	55.6	45.0	8	53.0	42.4	7	49.4
294	40.2	7	47.2	38.0	7	45.0	35.2	9	44.2	36.6	8	44.6	45.2	7	52.2
295	45.8	9	54.8	41.2	5	46.2	49.4	7	56.4	38.6	7	45.6	45.2	7	52.2
296	41.2	8	49.2	30.2	7	37.2	41.0	11	52.0	34.8	7	41.8	43.0	7	50.0
297	39.6	7	46.6	32.0	7	39.0	40.6	8	48.6	33.8	7	40.8	41.0	7	48.0

## RESULTS OF BIDE

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			History of Education			Educational Psychology			Educational Eva & Guidance			Edn & National Development		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
298	41.0	8	49.0	34.2	7	41.2	37.0	8	45.0	34.8	9	43.8	39.8	7	46.8
299	42.6	10	52.6	38.0	8	46.0	45.2	7	52.2	36.4	7	43.4	40.0	9	49.0
300	54.8	8	62.8	49.2	7	56.2	55.0	8	63.0	46.0	7	53.0	55.6	7	62.6
301	55.4	9	64.4	47.8	9	56.8	54.6	7	61.6	49.2	8	57.2	55.2	8	63.2
302	40.4	9	49.4	32.8	8	40.8	41.8	9	50.8	38.0	11	49.0	40.8	4	44.8
303	54.8	10	64.8	46.2	9	55.2	59.0	11	70.0	48.8	9	57.8	48.4	10	58.4
304	46.4	7	53.4	34.6	7	41.6	49.4	8	57.4	36.8	8	44.8	48.0	7	55.0
305	56.2	9	65.2	48.8	7	55.8	55.8	9	64.8	50.8	8	58.8	55.0	7	62.0
306	52.0	11	63.0	45.6	7	52.6	54.2	9	63.2	43.0	10	53.0	51.2	7	58.2
307	43.0	5	48.0	31.4	3	34.4	38.6	7	45.6	36.8	7	43.8	42.6	7	49.6
N=	307	307	307 *	307	307	307 *	307	307	307 *	307	307	307 *	307	307	307 *
AVG=	48.59	8.59	57.18 *	41.73	7.50	49.24 *	49.02	8.94	57.96 *	43.30	8.37	51.67 *	47.20	8.49	55.70 *
VAR=	31.43	2.36	38.57 *	39.26	1.53	44.31 *	55.20	2.17	64.05 *	44.79	2.61	54.85 *	26.38	3.41	33.72 *
STD=	5.61	1.54	6.21 *	6.27	1.24	6.66 *	7.43	1.47	8.00 *	6.69	1.62	7.41 *	5.14	1.85	5.81 *



## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
1										58.8	7	65.8				54.6	12	66.6
2	36.8	7	43.8	41.2	5	46.2												
3	35.2	7	42.2							44.6	8	52.6						
4							46.4	9	55.4	47.2	9	56.2						
5							49.2	7	56.2				45.6	8	53.6			
6										50.0	10	60.0	52.4	11	63.4			
7							47.0	7	54.0							52.6	10	62.6
8							41.2	7	48.2				38.6	9	47.6			
9							33.6	7	40.6				45.0	10	55.0			
10													42.8	8	50.8	46.6	9	55.6
11													47.2	9	56.2	49.4	10	59.4
12	50.6	14	64.6	50.0	10	60.0										53.6	9	62.6
13							52.2	9	61.2							44.4	7	51.4
14													38.8	5	43.8			
15	43.6	13	56.6	52.0	11	63.0										47.4	8	55.4
16	38.0	7	45.0													57.4	8	65.4
17							52.4	8	60.4									
18				38.2	10	48.2	37.2	8	45.2									
19	36.2	7	43.2	57.6	12	69.6												
20	36.4	8	44.4	40.4	9	49.4												
21							36.2	8	44.2							43.0	11	54.0
22	31.2	9	40.2	40.2	8	48.2												
23										54.2	10	64.2				53.4	8	61.4
24													41.6	10	51.6	38.8	7	45.8
25	36.4	7	43.4	45.2	8	53.2												
26	51.6	9	60.6	62.0	11	73.0												
27	45.2	8	53.2	52.6	9	61.6												

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
28							33.4	10	43.4							37.6	8	45.6
29	43.0	7	50.0													39.6	9	48.6
30	53.8	16	69.8	53.2	10	63.2												
31							41.4	7	48.4	35.2	7	42.2						
32	48.2	13	61.2	58.6	11	69.6												
33							34.0	11	45.0							37.2	7	44.2
34	47.2	8	55.2	51.6	9	60.6												
35													48.0	10	58.0	49.8	9	58.8
36	39.4	12	51.4	45.0	9	54.0												
37										51.0	7	58.0				54.8	10	64.8
38	38.0	15	53.0	45.6	9	54.6												
39							45.6	7	52.6							51.4	9	60.4
40							40.6	9	49.6							48.6	12	60.6
41										38.0	8	46.0	50.6	8	58.6			
42							43.0	7	50.0				44.8	7	51.8			
43	47.2	9	56.2	53.2	11	64.2												
44							51.8	7	58.8							51.4	10	61.4
45							38.4	7	45.4							44.0	9	53.0
46							56.8	9	65.8				62.8	11	73.8			
47	46.8	10	56.8	53.4	8	61.4												
48	55.0	11	66.0	59.8	9	68.8												
49													61.4	10	71.4	59.6	12	71.6
50										49.0	10	59.0				52.4	11	63.4
51							47.2	8	55.2							55.8	11	66.8
52							38.0	10	48.0							37.4	9	46.4
53							36.2	7	43.2							41.2	7	48.2
54										45.6	8	53.6				51.4	10	61.4

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl. N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
55													50.8	10	60.8	48.8	7	55.8
56	25.2	7	32.2				27.8	7	34.8									
57	53.4	8	61.4	58.6	11	69.6												
58	37.6	13	50.6	42.2	9	51.2												
59							43.2	7	50.2	49.6	11	60.6						
60	51.8	14	65.8	52.6	9	61.6												
61	41.4	13	54.4	48.8	10	58.8												
62	46.8	13	59.8	53.8	10	63.8												
63							38.6	7	45.6	39.2	8	47.2						
64	41.4	8	49.4										55.0	10	65.0			
65							37.6	7	44.6				38.6	7	45.6			
66							45	8	53.0							54.8	9	63.8
67							43.4	7	50.4							58.2	11	69.2
68													49.4	9	58.4	49.6	9	58.6
69	39.6	8	47.6	47.8	10	57.8												
70	33.8	7	40.8										47.6	8	55.6			
71							46.4	9	55.4							48.8	7	55.8
72							48.0	10	58.0				50.0	8	58.0			
73										48.4	10	58.4				57.0	13	70.0
74	44.2	8	52.2	57.2	9	66.2												
75							54.0	12	66.0	53.6	9	62.6						
76				43.2	12	55.2							50.2	8	58.2			
77							32.4	4	36.4							36.4	10	46.4
78							54.8	7	61.8							50.8	12	62.8
79							46.6	7	53.6				51.4	8	59.4			
80	46.2	9	55.2	56.2	11	67.2												
81	44.2	7	51.2	50.4	9	59.4												



## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
82													44.6	7	51.6	47.4	8	55.4
83	45.4	9	54.4													55.2	11	66.2
84													42.6	5	47.6	46.4	8	54.4
85							41.4	7	48.4				38.8	8	46.8			
86							43.6	8	51.6				51.6	7	58.6			
87	35.0	8	43.0	39.0	10	49.0												
88	56.8	10	66.8	62.6	9	71.6												
89	34.2	7	41.2										48.6	9	57.6			
90	60.0	14	74.0	63.6	10	73.6												
91							49.4	7	56.4							46.6	10	56.6
92	37.0	9	46.0													54.0	11	65.0
93							34.0	7	41.0				37.4	7	44.4			
94							58.8	7	65.8				62.0	8	70.0			
95							46.4	7	53.4							46.2	10	56.2
96	39.8	8	47.8							31.8	7	38.8						
97													50.2	7	57.2	46.2	8	54.2
98							39.2	5	44.2							45.8	7	52.8
99													38.6	7	45.6	46.4	8	54.4
100				46.4	8	54.4							51.6	8	59.6			
101	45.6	11	56.6	55.2	9	64.2												
102	37.8	11	48.8	57.4	12	69.4												
103							55.8	7	62.8							53.8	9	62.8
104							47.4	7	54.4							50.4	7	57.4
105							54.8	7	61.0							54.8	10	65.8
106													46.4	7	53.4	42.2	7	49.2
107													36.0	7	43.0	34.8	8	42.8
108	51.8	7	58.8	51.6	11	62.6												

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
109							29.2	10	39.0							38.2	7	45.2
110										48.0	9	57.0	56.8	10	66.8			
111							49.2	8	57.2							59.0	10	69.0
112	44.2	8	52.2	56.2	11	67.2												
113							61.2	10	71.2							65.4	12	77.4
114	41.2	7	48.2	52.2	10	62.2												
115	40.6	7	47.6	54.0	12	66												
116	50.0	16	66.0	51.8	14	65.8												
117							51.8	7	58.8				60.4	8	68.4			
118							39.4	7	46.4							45.4	11	56.4
119							50.8	7	57.8							49.2	7	58.2
120	35.0	9	44.0													43.2	7	50.2
121							49.0	8	57							45.6	12	57.2
122	43.2	8	51.2	56.4	12	68.4												
123							57.2	7	64.2							51.0	10	61.0
124	33.8	7	40.8	43.6	10	53.6												
125							43.8	10	53.8	42.8	9	51.8						
126							46.8	7	53.8	44.8	9	53.8						
127				46.4	8	54.4							52.0	8	60.0			
128							43.2	7	50.2							50.8	10	60.8
129				51.8	10	61.8							54.8	8	62.8			
130							46.0	7	53							51.0	11	62.0
131	41.2	7	48.2	45.2	10	55.2												
132													42.2	9	51.2	45.0	7	52.0
133													50.4	10	60.4	54.2	10	64.2
134													44.6	7	51.6	47.0	9	56.0
135													50.6	10	60.6	50.4	10	60.4

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
136													62.0	10	72.0	63.0	11	74.0
137							36.0	7	43							43.0	7	50.0
138							39.2	7	46.2							46.8	11	57.0
139	53.4	7	60.4	62.8	7	69.8												
140										54.0	10	64.0				54.8	10	64.8
141	47.4	7	54.4	46.2	11	57.2												
142	46.8	9	55.8	48.8	12	60.8												
143	35.4	7	42.4	47.0	8	55												
144							35.2	11	46.2							37.6	7	44.6
145	43.2	8	51.2	54.6	14	68.6												
146										32.8	7	39.8				53.0	9	62.0
147										57.0	8	60.0				57.0	7	64.0
148							41.8	7	48.8				48.2	10	58.2			
149							43.0	7	50							50.6	11	61.6
150	42.6	7	49.6										56.4	13	69.4			
151	31	7	38	54.4	10	55.4												
152							36.0	7	43.0							44.8	12	56.8
153				52.4	11	63.4	42.8	8	50.8									
154													57.8	11	68.8	52.8	10	62.8
155							47.4	9	56.4							55.8	8	63.8
156	46.4	7	53.4	52.4	8	60.4												
157							40.2	9	49.2							44.4	8	52.4
158	49.4	13	62.4	59.6	9	68.6												
159	42.2	9	51.2	48.6	7	55.6												
160	38.4	7	45.4	43.2	7	50.2												
161							40.4	8	48.4							48.6	10	58.6
162	41.0	13	54.0	47.6	10	57.6												



## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
163													45.0	7	52.0	48.6	10	58.6
164							40.0	12	56.0	45.0	7	52.0						
165							37.4	10	47.4	38.8	7	45.8						
166	50.6	8	58.6	55.0	9	64.0												
167							50.2	8	58.2	43.8	7	50.8						
168							40.4	11	51.4	39.0	7	46.0						
169	49.8	7	56.8	58.2	9	67.2												
170													50.4	8	58.4	47.4	7	54.4
171										43.4	7	50.4				43.6	7	50.6
172							35.6	9	44.6				41.4	7	48.4			
173	47.6	7	54.6	52.8	9	61.8												
174							31.2	9	40.2							43.4	7	50.4
175							46.0	8	54.0				46.8	8	54.8			
176													53.4	12	65.4	50.6	11	61.6
177							38.8	8	46.8				44.2	7	51.2			
178							38.4	9	47.4							52.4	9	61.4
179	33.0	7	40.0				34.2	8	42.2									
180							37.4	9	46.4							42.8	8	50.8
181	41.8	12	53.8	43.8	7	50.8												
182													55.8	10	65.8	48.6	10	58.6
183							42.6	10	52.6				48.0	9	57.0			
184							40.8	9	49.8							49.0	9	58.0
185	35.6	12	47.6										45.4	7	52.4			
186	46.6	7	53.6	45.0	5	50.0												
187	49.6	11	60.6	53.2	11	64.2												
188	39.0	11	50.0				48.4	11	59.4									
189	35.0	12	47.0										53.4	8	61.4			

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
190							57.6	9	66.6							60.0	8	68.0
191	42.8	7	49.8	54.0	9	63.0												
192	42.6	7	49.6	51.6	7	58.6												
193							45.6	9	54.6	43.2	7	50.2						
194							50.0	9	59.0							51.0	7	58.0
195							39.8	8	47.8				46.4	10	56.4			
196	50.6	7	57.6							53.0	8	61.0						
197										30.4	7	37.4	41.4	8	49.4			
198				49.4	4	53.4							56.8	8	64.8			
199							37.2	8	45.2				46.6	8	54.6			
200				62.0	10	72.0							60.8	9	69.8			
201							54.0	8	62.0				59	9	68			
202							33.8	7	40.8				42	8	50			
203							38.0	8	46.0							48.6	8	56.6
204							38.6	8	46.6							46.2	7	53.2
205										57.4	10	67.4				54.2	8	62.2
206	34.8	7	41.8	47.8	10	57.8							60.4	8	68.4	61.0	7	68.0
207													53.8	10	63.8			
208										60.2	8	68.2						
209	43.0	12	55.0	49.8	7	56.8												
210	38.2	7	45.2	51.2	7	58.2												
211	50.6	7	57.6	56.0	7	63.0												
212							48.4	11	59.4							49.6	7	56.6
213	47.0	9	56.0	62.0	10	72.0												
214													42.8	7	49.8	44.2	8	52.2
215													44.2	9	53.2	46.4	8	54.4
216							38.6	10	48.6							43.4	8	51.4

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
217													53.2	8	61.2	49.4	7	56.4
218				46.2	7	53.2							37.2	7	44.2			
219										29.8	7	36.8				40.4	7	47.4
220							39.2	9	48.2							44.4	8	52.4
221	33.2	9	42.2										50.6	10	60.6			
222							34.6	9	43.6							36.6	7	43.6
223				56.8	12	68.8							58.0	12	70.0			
224	33.2	7	40.2	37.2	7	44.2												
225													49.2	9	58.2	50.8	9	59.8
226							61.0	9	70.0							62.6	11	73.6
227													42.0	7	49.0	47.6	7	54.6
228							39.4	12	51.4							45.4	7	52.4
229							35.4	10	45.4							41.6	9	50.6
230													58.6	10	70.6	51.2	8	59.2
231	46.8	10	56.8	55.2	9	64.2										53.4	12	65.4
232				51.6	12	63.6										45.2	9	54.2
233							42.6	9	51.6							47.6	8	55.6
234				51.6	9	60.6							44.8	8	52.8	41.2	8	49.2
235													44.8	8	52.8	41.2	8	49.2
236							40.0	8	48.0							40.6	7	47.6
237							45.8	11	56.8				41.6	8	49.6			
238							35.0	9	44.0							41.6	7	48.0
239										36.8	7	43.8				43.4	8	51.4
240										51.6	7	58.6				59.8	10	69.8
241										47.2	10	57.2	53.6	9	62.6			
242										39.0	7	46.0				54.0	7	61.0
243										35.0	7	42.0				51.2	7	58.2



## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
244							39.2	10	49.2	38.8	7	45.0						
245				44.4	10	54.4							37.6	9	46.6			
246													55.0	10	65.0	56.8	12	68.8
247	42.2	9	51.2							44.2	8	52.2						
248							43.0	8	51.0	38.0	7	45.0						
249	41.6	9	50.6							45.2	7	52.2						
250	43.6	10	53.6	41.6	11	52.6												
251										58.4	7	65.4				58.0	9	67.0
252							52.6	11	63.6							58.4	12	70.4
253							51.4	10	61.4							58.4	10	68.4
254				48.8	9	57.8				43.2	8	51.2						
255							52.8	8	60.8	54.6	8	62.0						
256	41.4	13	54.4	46.8	8	54.8							42.8	7	49.8			
257										37.6	8	45.6						
258	31.8	13	44.8							38.0	9	47.0						
259				59.6	7	66.6							63.6	10	73.6			
260							40.4	9	49.4							45.2	7	52.2
261	41.4	7	48.4	52.8	11	63.8												
262													59.0	8	67.0	56.6	13	69.6
263													46.2	9	55.2	51.6	7	58.6
264							35.8	10	45.8							43.6	8	51.6
265							33.2	10	43.2							36.4	7	43.4
266							55.2	11	66.2							62.8	9	71.8
267							53.0	11	64.0							57.8	9	66.8
268													57.0	7	64.0	52.4	9	61.4
269							53.0	11	64.0							49.4	7	56.4
270													50.6	9	59.6	50.0	7	57.0

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
271	40.6	12	52.6										45.0	7	52.0			
272							41.0	8	49.0				43.0	8	51.0			
273							35.8	10	45.8							46.0	7	53.0
274							51.2	9	60.2							55.4	8	63.4
275	34.4	8	42.4										50.6	10	60.6			
276							48.8	8	56.8				48.4	7	55.4			
277													45.6	10	55.6	47.0	9	56.0
278										55.0	10	65.0				53.6	10	63.6
279													42.6	7	49.6	48.4	7	55.4
280													50.8	7	57.8	49.0	9	56.0
281													47.2	8	55.2	45.4	7	52.4
282	29.2	9	38.2													44.6	8	52.6
283							37.8	9	46.8	34.6	7	41.6						
284							42.4	8	50.4				51.6	8	59.6			
285							57.6	11	68.6	58.2	9	67.2						
286							50.2	10	60.2							51.0	7	58.0
287	49.6	8	57.6	52.0	7	59.0												
288				52.0	7	59.0										54.2	9	63.2
289	35.8	8	43.8	53.4	10	63.4												
290													47.0	7	54.0	46.6	9	55.6
291							40.6	12	52.6							63.4	9	62.4
292	44.0	8	52.0							53.4	12	65.4						
293	41.2	13	54.2										44.2	9	53.2			
294													42.2	7	49.2	44.2	7	51.2
295							40.8	10	50.8							41.4	7	48.4
296							35.8	11	46.8	34.0	11	45.0						
297				44.0	7	51.0							38.0	10	48.0			

## RESULTS OF BIDE

## ELECTIVE SUBJECTS

Sl.N	Mathematics			Science			Bangla			English			Geography			Social Science		
	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot	Obj	Esy	Tot
298	36.6	7	43.6	37.4	7	44.4												
299													46.2	7	53.2	43.6	7	50.6
300													46.8	9	55.8	53.4	8	61.4
301													53.4	8	61.4	52.4	12	64.4
302													40.2	7	47.2	42.2	7	49.2
303													53.2	10	63.2	56.4	10	66.4
304													43.0	9	52.0			
305							50.0	10	60.0				52.0	8	60.0			
306													53.0	8	61.0	55.6	10	65.6
307	30.0	7	37.0										39.2	5	44.2			
N=	98	98	98 *	88	88	88 *	124	124	124 *	50	50	50 *	106	106	106 *	148	148	148 *
AVG=	42.14	9.18	51.33 *	50.96	9.32	60.18 *	43.49	8.54	52.06 *	45.40	8.22	53.49 *	48.71	8.43	57.17 *	49.25	8.83	58.01 *
VAR=	45.66	6.17	60.74 *	39.17	3.51	49.34 *	53.26	2.38	56.89 *	67.29	1.85	76.70 *	44.37	2.09	56.35 *	40.29	2.76	51.94 *
STD=	6.76	2.48	7.79 *	6.26	1.87	7.02 *	7.30	1.54	7.54 *	8.20	1.36	8.76 *	6.66	1.45	7.51 *	6.35	1.66	7.21 *



## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
1	47	40	42	129	444.4	573
2	37	42	46	125	315.8	441
3	48	50	40	138	374.4	512
4	49	45	43	137	403.8	541
5	49	40	35	124	384.2	508
6	46	55	48	149	429.2	578
7	44	42	40	126	405.2	531
8	47	50	40	137	345.8	483
9	50	45	30	125	325.4	450
10	38	40	40	118	357.0	475
11	48	48	40	136	377.2	513
12	48	40	40	128	405.0	533
13	35	45	38	118	410.8	529
14	42	45	41	128	324.2	452
15	50	54	51	155	443.2	598
16	32	48	43	123	354.0	477
17	44	48	43	135	426.8	562
18	55	47	43	145	325.2	470
19	50	46	48	144	405.0	549
20	48	50	55	153	336.0	489
21	43	46	50	139	323.2	462
22	40	48	45	133	321.6	455
23	55	56	57	168	426.4	594
24	49	45	45	139	314.0	453
25	46	50	48	144	330.8	475
26	47	53	50	150	450.2	600
27	47	50	53	150	396.2	546

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
28	50	42	40	132	324.0	456
29	40	45	45	130	334.0	464
30	46	40	40	126	424.8	551
31	49	43	45	137	342.4	479
32	55	54	60	169	441.2	610
33	42	43	42	127	299.2	426
34	46	50	50	146	389.2	535
35	45	44	40	129	395.0	524
36	46	51	41	138	350.8	489
37	37	46	45	128	425.0	553
38	46	50	52	148	384.4	532
39	41	45	42	128	392.2	520
40	41	40	38	119	368.4	487
41	51	35	35	121	377.6	499
42	40	35	35	110	367.0	477
43	44	38	38	120	427.4	547
44	50	38	40	128	416.4	544
45	44	32	35	111	340.4	451
46	56	40	42	138	476.8	615
47	52	45	48	145	411.8	557
48	42	40	42	124	446.6	571
49	53	40	42	135	474.0	609
50	43	53	48	144	415.8	560
51	49	42	40	131	399.2	530
52	48	50	50	148	339.2	487
53	40	45	46	131	323.2	454
54	51	47	45	143	407.6	551

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
55	45	44	40	129	402.4	531
56	43	44	43	130	299.2	429
57	48	50	50	148	420.2	568
58	44	56	55	155	360.4	515
59	49	56	55	160	372.4	532
60	43	55	54	152	424.6	577
61	48	52	55	155	361.4	516
62	42	48	40	130	410.8	541
63	47	50	45	142	327.0	469
64	44	42	43	129	392.2	521
65	43	40	40	123	332.6	456
66	39	44	44	127	416.6	544
67	51	43	45	139	437.0	576
68	45	45	43	133	400.0	533
69	42	45	40	127	359.2	486
70	29	45	40	114	330.8	445
71	47	47	44	138	384.8	523
72	59	50	40	149	431.6	581
73	35	32	40	107	439.6	547
74	44	44	46	134	418.0	552
75	47	40	42	129	459.4	588
76	46	44	43	133	327.6	461
77	38	32	30	100	298.6	399
78	54	48	41	143	426.0	569
79	37	43	41	121	396.0	517
80	40	48	52	140	427.0	567
81	46	56	45	147	396.0	543



## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
82	45	50	42	137	380.8	518
83	50	58	52	160	425.4	585
84	46	48	37	131	347.6	479
85	53	58	40	151	333.2	484
86	46	45	45	136	370.0	506
87	45	52	45	142	320.4	462
88	49	47	47	143	478.6	622
89	42	46	42	130	376.2	506
90	45	55	52	152	485.8	638
91	44	50	40	134	384.8	519
92	38	49	55	142	391.2	533
93	33	43	40	116	289.2	405
94	48	45	52	145	448.6	594
95	45	43	48	136	362.4	498
96	42	38	30	110	314.2	424
97	40	38	35	113	361.4	474
98	36	39	35	110	334.8	445
99	37	40	35	112	337.6	450
100	57	52	50	159	346.8	506
101	42	40	40	122	419.4	541
102	45	36	50	131	412.2	543
103	64	57	52	173	430.0	603
104	56	42	35	133	386.4	519
105	60	57	50	167	441.8	609
106	37	50	45	132	339.8	472
107	38	40	40	118	300.2	418
108	45	50	45	140	385.8	526

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
109	38	50	40	128	297.2	425
110	45	55	55	155	416.0	571
111	41	50	48	139	434.0	573
112	52	58	55	165	379.4	544
113	57	58	57	172	506.4	678
114	48	50	50	148	369.8	518
115	45	45	45	135	409.6	545
116	50	58	58	166	422.4	588
117	56	58	52	166	433.2	599
118	44	45	48	137	362.4	499
119	54	48	42	144	391.8	536
120	46	50	42	138	339.2	477
121	59	58	45	162	374.8	537
122	42	48	50	140	401.8	542
123	51	50	48	149	421.3	570
124	43	45	42	130	341.2	471
125	49	44	44	137	370.4	507
126	37	43	45	125	405.4	530
127	47	45	44	136	369.4	505
128	49	47	43	139	400.0	539
129	47	47	42	136	394.2	530
130	52	42	42	136	398.0	534
131	44	50	42	136	353.0	489
132	37	43	44	124	355.2	479
133	46	48	44	138	412.8	551
134	45	45	43	133	372.6	506
135	34	43	43	120	375.8	496

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
136	52	40	40	132	461.2	593
137	36	48	43	127	328.2	455
138	43	40	42	125	350.0	475
139	50	50	50	150	462.2	612
140	37	45	47	129	436.4	565
141	40	55	55	150	362.6	513
142	49	52	50	151	385.8	537
143	38	58	45	141	351.2	492
144	40	50	36	126	315.6	442
145	53	50	52	155	433.6	589
146	50	56	56	162	365.0	527
147	43	53	58	154	431.0	585
148	52	50	36	138	374.6	513
149	50	51	38	139	368.0	507
150	50	55	42	147	407.6	555
151	50	48	45	143	326.8	470
152	27	35	30	92	337.6	430
153	51	46	40	137	392.6	530
154	40	43	40	123	417.0	540
155	39	40	35	114	423.4	537
156	46	60	50	156	428.2	584
157	38	43	35	116	352.8	469
158	47	52	45	144	433.8	578
159	38	41	44	123	378.2	501
160	52	50	40	142	337.4	479
161	42	51	44	137	369.8	507
162	44	42	50	136	402.4	538



## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
163	47	48	30	125	386.2	511
164	50	42	30	122	383.4	505
165	46	37	35	118	343.8	462
166	46	42	40	128	416.0	544
167	47	37	25	109	396.2	505
168	45	37	36	118	356.4	474
169	44	46	37	127	437.4	564
170	45	55	52	152	362.2	514
171	44	48	50	142	375.8	518
172	44	47	40	131	319.2	450
173	40	50	50	140	364.4	504
174	37	43	40	120	334.6	455
175	45	42	40	127	365.4	492
176	48	55	50	153	424.0	577
177	43	42	40	125	340.6	466
178	41	40	40	121	375.8	497
179	43	45	40	128	302.4	430
180	42	45	50	137	339.8	477
181	43	50	55	148	342.4	490
182	40	45	50	135	393.8	529
183	52	55	55	162	373.8	536
184	48	48	50	146	366.4	512
185	44	50	45	139	316.6	456
186	44	50	45	139	332.2	471
187	43	52	50	145	390.8	536
188	43	54	45	142	396.2	538
189	50	42	50	142	407.6	550

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
190	51	50	50	151	452.4	603
191	43	52	52	147	425.0	572
192	41	55	55	151	404.8	556
193	52	50	45	147	411.4	558
194	48	48	45	141	413.2	554
195	52	42	41	135	336.4	471
196	50	50	43	143	432.2	575
197	43	45	44	132	305.4	437
198	37	46	47	130	386.0	516
199	48	48	44	140	354.6	495
200	51	60	50	161	461.2	622
201	50	50	50	150	450.0	600
202	41	40	35	116	311.2	427
203	34	43	40	117	353.8	471
204	40	40	35	115	345.2	460
205	46	47	40	133	426.6	560
206	32	45	43	120	382.0	502
207	52	52	45	149	454.0	603
208	47	40	37	124	439.0	563
209	53	40	35	128	395.2	523
210	41	55	57	153	358.2	511
211	47	50	50	147	410.0	557
212	46	45	30	121	404.2	525
213	58	60	62	180	450.2	630
214	52	58	38	148	348.2	496
215	37	50	41	128	358.0	486
216	52	30	20	102	339.8	442

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
217	39	30	35	104	372.4	476
218	43	45	45	133	340.8	474
219	27	43	30	100	296.6	397
220	46	48	40	134	377.6	512
221	43	44	42	129	368.6	498
222	42	48	44	134	305.2	439
223	54	60	50	164	446.0	610
224	32	37	40	109	302.4	411
225	41	38	40	119	382.4	501
226	54	52	52	158	489.4	647
227	44	25	30	99	368.0	467
228	47	40	47	134	354.0	488
229	45	42	30	117	341.8	459
230	57	57	50	164	446.4	610
231	45	42	35	122	395.6	518
232	40	40	40	120	408.8	529
233	44	46	40	130	367.0	497
234	34	42	40	116	388.8	505
235	41	45	40	126	334.2	460
236	40	52	48	140	346.8	487
237	56	57	55	168	368.4	536
238	42	45	40	127	342.6	470
239	28	45	42	115	348.2	463
240	48	50	40	138	448.2	586
241	49	50	45	144	407.6	552
242	44	42	42	128	385.0	513
243	43	43	42	128	353.8	482



## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
244	49	53	43	145	358.6	504
245	53	54	42	149	351.4	500
246	62	60	58	180	449.6	630
247	44	50	45	139	372.8	512
248	46	40	50	136	350.6	487
249	44	45	46	135	418.6	554
250	46	46	40	132	349.2	481
251	41	47	45	133	446.8	580
252	53	58	58	169	455.6	625
253	47	45	45	137	443.2	580
254	45	55	43	143	391.4	534
255	55	46	48	149	434.4	583
256	48	46	45	139	356.4	495
257	48	42	40	130	349.2	479
258	42	44	42	128	323.0	451
259	46	48	52	146	440.0	586
260	52	40	38	130	363.6	494
261	46	56	50	152	360.8	513
262	51	43	45	139	448.8	588
263	43	38	35	116	382.2	498
264	47	43	37	127	345.6	473
265	49	40	40	129	325.4	454
266	54	50	50	154	471.8	626
267	67	60	60	187	468.0	655
268	54	40	50	144	411.8	556
269	50	50	48	148	407.4	555
270	42	30	20	92	376.2	468

## RESULTS OF BIDE

## PRACTIALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
271	49	52	40	141	375.8	517
272	47	36	38	121	357.2	478
273	43	57	40	140	343.2	483
274	44	53	50	147	448.4	595
275	46	40	40	126	388.0	514
276	55	50	52	157	406.4	563
277	52	50	50	152	376.6	529
278	55	60	58	173	420.2	593
279	49	50	35	134	381.4	515
280	43	42	40	125	376.8	502
281	45	41	37	123	360.0	483
282	35	42	44	121	314.8	436
283	48	41	37	126	337.4	463
284	37	35	37	109	363.8	473
285	46	50	48	144	458.4	602
286	48	52	48	148	409.4	557
287	44	42	35	121	392.2	513
288	47	40	42	129	433.8	563
289	44	48	40	132	366.8	499
290	41	45	40	126	385.2	511
291	50	40	38	128	387.0	515
292	47	48	42	137	429.2	566
293	44	55	55	154	365.0	519
294	44	48	47	139	333.6	473
295	43	57	56	156	354.4	510
296	41	42	43	126	322.0	448
297	41	57	57	155	322.0	477

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
298	35	57	53	145	313.8	459
299	47	54	50	151	347.0	498
300	48	57	56	161	414.8	576
301	48	52	40	140	429.0	569
302	43	50	37	130	331.2	461
303	51	57	45	153	435.8	589
304	47	56	48	151	364.2	515
305	43	50	48	141	426.4	567
306	50	50	50	150	416.6	567
307	40	40	37	117	302.6	420
N=	307	307	307 *	307 *	307 *	307
AVG=	45.53	46.87	44.01 *	136.42 *	382.82 *	519.21
VAR=	36.20	41.00	46.53 *	237.32 *	1958.09 *	2761.24
STD=	6.02	6.40	6.82 *	15.41 ;	44.25 *	52.55

\*ComTraC



**APPENDIX B**

**DETAILED MARKS OF THE SAMPLE OF  
STUDENTS OF TTC**

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot
1	25	25	50	30	27	57	28	23	51	22	21	43	29	22	51
2	28	27	55	32	29	61	30	28	58	23	24	47	24	24	48
3	25	26	51	31	27	58	31	27	58	25	19	44	25	24	49
4	24	27	51	28	27	55	28	25	53	29	22	51	23	25	48
5	29	23	52	31	30	61	28	28	56	29	23	52	25	27	52
6	24	22	46	30	26	56	27	25	52	28	24	52	24	23	47
7	27	28	55	29	27	56	29	29	58	30	23	53	26	26	52
8	20	26	46	26	25	51	28	25	53	29	22	51	23	21	44
9	24	29	53	30	30	60	27	29	56	29	28	57	23	26	49
10	22	23	45	26	23	49	26	27	53	27	16	43	24	22	46
11	27	25	52	31	28	59	28	27	55	28	26	54	25	24	49
12	26	26	52	30	26	56	29	28	57	29	25	54	22	25	47
13	28	25	53	29	26	55	29	30	59	27	26	53	25	23	48
14	27	25	52	28	26	54	28	27	55	26	26	52	24	24	48
15	24	19	43	25	24	49	25	25	50	24	21	45	23	22	45
16	23	24	47	26	26	52	28	25	53	28	13	41	23	22	45
17	23	24	47	27	23	50	28	25	53	25	22	47	24	22	46
18	31	27	58	33	32	65	32	31	63	30	28	58	28	24	52
19	27	27	54	30	28	58	30	25	55	35	32	67	28	23	51
20	23	23	46	32	30	62	29	26	55	26	26	52	27	21	48
21	22	22	44	29	24	53	26	25	51	23	21	44	23	21	44
22	23	23	46	28	24	52	26	21	47	29	23	52	25	22	47
23	20	20	40	26	24	50	27	22	49	25	24	49	22	24	46
24	26	25	51	30	27	57	30	28	58	33	29	62	29	23	52
25	18	21	39	22	25	47	26	21	47	28	24	52	21	18	39
26	27	28	55	32	30	62	29	26	55	25	22	47	22	24	46
27	26	24	50	27	27	54	28	25	53	24	18	42	22	23	45

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
28	22	21	43	25	25	50	24	21	45	26	19	45	24	18	42
29	23	25	48	28	25	53	27	28	55	28	27	55	28	24	52
30	23	23	46	27	22	49	28	25	53	28	23	51	24	24	48
31	24	25	49	30	28	58	27	28	55	27	29	56	24	24	48
32	24	26	50	27	28	55	29	26	55	26	22	48	25	22	47
33	28	24	52	27	27	54	28	26	54	34	29	63	27	24	51
34	27	26	53	28	26	54	27	24	51	26	24	50	26	26	52
35	24	24	48	29	26	55	27	26	53	26	24	50	25	22	47
36	25	21	46	26	23	49	27	26	53	23	23	46	24	23	47
37	25	23	48	28	27	55	27	26	53	27	24	51	28	21	49
38	24	21	45	28	26	54	26	29	55	29	19	48	26	25	51
39	28	24	52	27	26	53	28	27	55	27	30	57	24	23	47
40	28	24	52	31	31	62	31	30	61	29	27	56	27	24	51
41	25	22	47	24	27	51	25	26	51	25	21	46	23	22	45
42	23	25	48	25	23	48	26	26	52	28	22	50	21	22	43
43	25	23	48	27	24	51	26	26	52	24	19	43	24	22	46
44	23	25	48	24	24	48	26	26	52	26	20	46	26	22	48
45	28	26	54	29	25	54	26	25	51	27	29	56	26	25	51
46	26	26	52	29	28	57	28	27	55	31	24	55	26	26	52
47	25	24	49	27	26	53	27	25	52	27	17	44	24	23	47
48	26	23	49	29	25	54	28	26	54	28	26	54	25	24	49
49	23	22	45	26	22	48	27	24	51	26	25	51	22	21	43
50	25	26	51	26	27	53	30	26	56	30	23	53	24	22	46
51	23	22	45	26	24	50	28	26	54	28	22	50	22	20	42
52	25	21	46	27	27	54	27	27	54	29	27	56	24	24	48
53	26	23	49	29	26	55	27	27	54	27	30	57	24	24	48
54	28	25	53	29	26	55	29	30	59	31	26	57	28	27	55



## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
55	26	22	48	26	26	52	27	27	54	30	27	57	24	20	44
56	23	23	46	27	27	54	28	27	55	31	26	57	24	24	48
57	24	23	47	27	26	53	29	24	53	31	26	57	28	21	49
58	22	21	43	20	28	48	26	24	50	25	22	47	26	24	50
59	26	25	51	28	27	55	29	28	57	29	25	54	26	23	49
60	25	24	49	30	24	54	29	26	55	30	26	56	28	24	52
61	22	22	44	27	27	54	25	25	50	27	26	53	24	23	47
62	24	24	48	29	27	56	27	27	54	27	23	50	25	22	47
63	28	24	52	27	28	55	30	30	60	31	26	57	23	23	46
64	23	24	47	24	26	50	26	25	51	26	24	50	23	22	45
65	26	23	49	29	28	57	27	28	55	27	25	52	25	23	48
66	26	28	54	28	28	56	29	31	60	31	27	58	26	28	54
67	23	24	47	25	24	49	26	27	53	26	27	53	24	23	47
68	21	25	46	26	26	52	25	25	50	23	21	44	21	23	44
69	23	22	45	24	22	46	27	26	53	25	22	47	23	20	43
70	21	22	43	22	19	41	22	21	43	24	22	46	21	21	42
71	23	25	48	26	23	49	23	24	47	25	24	49	23	24	47
72	26	25	51	30	26	56	28	30	58	26	28	54	27	25	52
73	30	26	56	30	27	57	17	26	43	28	21	49	26	23	49
74	22	22	44	24	23	47	24	24	48	24	20	44	21	18	39
75	24	20	44	26	25	51	23	24	47	29	22	51	22	20	42
76	25	24	49	27	25	52	24	21	45	27	22	49	22	20	42
77	27	28	55	30	28	58	27	27	54	30	23	53	26	21	47
78	21	24	45	27	25	52	28	26	54	26	23	49	24	21	45
79	24	26	50	28	28	56	24	23	47	27	18	45	23	19	42
80	25	25	50	28	27	55	28	24	52	30	23	53	25	22	47
81	24	24	48	27	28	55	25	23	48	25	20	45	24	20	44

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
82	28	27	55	28	27	55	25	28	53	30	21	51	25	23	48
83	23	22	45	27	26	53	26	24	50	25	22	47	24	20	44
84	24	25	49	28	26	54	27	27	54	27	22	49	26	24	50
85	28	24	52	30	26	56	28	22	50	27	24	51	26	20	46
86	30	27	57	30	29	59	27	28	55	27	26	53	31	28	59
87	25	25	50	29	26	55	27	27	54	25	25	50	26	26	52
88	28	28	56	28	27	55	28	27	55	28	27	55	29	25	54
89	25	24	49	26	27	53	23	23	46	26	25	51	25	22	47
90	27	24	51	30	27	57	27	24	51	31	25	56	26	22	48
91	25	26	51	25	26	51	26	26	52	28	23	51	25	23	48
92	26	30	56	29	28	57	27	25	52	30	24	54	27	27	54
93	30	27	57	29	27	56	28	29	57	31	29	60	25	29	54
94	25	26	51	26	26	52	27	27	54	27	25	52	22	28	50
95	26	23	49	27	26	53	27	27	54	28	25	53	23	21	44
96	26	24	50	29	26	55	28	28	56	29	23	52	28	24	52
97	30	27	57	29	28	57	27	29	56	29	25	54	26	24	50
98	27	27	54	28	27	55	25	26	51	27	23	50	27	23	50
99	26	27	53	29	27	56	26	28	54	30	26	56	26	23	49
100	25	25	50	26	26	52	25	24	49	28	25	53	25	21	46
101	25	24	49	31	27	58	27	27	54	27	23	50	26	20	46
102	27	27	54	28	27	55	28	27	55	31	25	56	27	27	54
103	21	20	41	23	25	48	23	24	47	26	23	49	21	20	41
104	21	24	45	26	29	55	25	25	50	26	24	50	23	21	44
105	28	24	52	30	28	58	26	30	56	19	28	47	27	22	49
106	23	20	43	26	23	49	24	24	48	23	19	42	25	21	46
107	20	20	40	27	22	49	26	25	51	28	21	49	25	22	47
108	22	20	42	25	27	52	26	26	52	24	25	49	24	21	45

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
109	30	29	59	30	31	61	28	29	57	31	27	58	31	30	61
110	27	24	51	31	28	59	26	27	53	28	28	56	26	23	49
111	23	24	47	29	24	53	24	27	51	22	25	47	26	26	52
112	18	19	37	23	21	44	24	23	47	27	23	50	21	20	41
113	26	26	52	31	26	57	26	26	52	26	22	48	27	22	49
114	25	25	50	29	24	53	25	28	53	27	26	53	25	25	50
115	26	25	51	27	24	51	29	29	58	26	23	49	28	24	52
116	22	23	45	27	24	51	27	25	52	26	24	50	26	22	48
117	27	26	53	30	28	58	29	30	59	28	26	54	27	25	52
118	23	23	46	28	21	49	23	24	47	23	19	42	23	24	47
119	23	19	42	26	24	50	24	23	47	24	26	50	24	21	45
120	21	22	43	27	25	52	25	23	48	27	19	46	24	18	42
121	27	26	53	29	25	54	27	30	57	25	25	50	23	27	50
122	20	24	44	27	22	49	27	25	52	26	24	50	23	20	43
123	18	19	37	24	22	46	24	25	49	26	20	46	23	18	41
124	22	23	45	28	23	51	23	19	42	27	22	49	22	21	43
125	24	25	49	25	23	48	26	29	55	26	21	47	25	22	47
126	22	23	45	27	23	50	24	27	51	28	24	52	22	21	43
127	22	22	44	27	23	50	26	23	49	29	23	52	23	20	43
128	22	25	47	24	23	47	25	27	52	25	26	51	23	20	43
129	23	26	49	28	23	51	28	30	58	31	27	58	25	24	49
130	20	26	46	27	21	48	26	26	52	24	25	49	24	20	44
131	21	21	42	27	21	48	24	24	48	24	18	42	23	19	42
132	24	25	49	24	24	48	26	26	52	27	25	52	23	20	43
133	23	25	48	27	21	48	26	25	51	25	27	52	24	21	45
134	22	21	43	25	23	48	25	24	49	24	24	48	24	20	44
135	24	25	49	25	23	48	26	26	52	28	29	57	25	27	52



## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
136	27	26	53	31	25	56	28	31	59	30	27	57	27	27	54
137	28	26	54	32	25	57	25	25	50	29	27	56	24	22	46
138	25	28	53	28	26	54	27	27	54	30	24	54	24	24	48
139	25	24	49	27	23	50	29	27	56	29	22	51	25	20	45
140	22	24	46	28	25	53	25	24	49	29	21	50	23	22	45
141	21	21	42	30	27	57	28	24	52	25	25	50	22	28	50
142	25	23	48	28	23	51	27	28	55	27	27	54	24	27	51
143	27	21	48	28	24	52	25	26	51	28	20	48	22	25	47
144	21	22	43	26	24	50	25	27	52	27	24	51	24	26	50
145	23	25	48	27	24	51	25	24	49	26	22	48	23	25	48
146	24	23	47	29	26	55	28	26	54	33	25	58	26	28	54
147	24	22	46	25	25	50	27	25	52	32	26	58	22	24	46
148	23	22	45	27	24	51	28	25	53	29	22	51	24	23	47
149	24	25	49	29	24	53	27	25	52	32	27	59	26	26	52
150	22	21	43	29	25	54	27	26	53	30	19	49	24	25	49
151	21	20	41	24	22	46	22	24	46	30	22	52	23	24	47
152	23	28	51	27	28	55	28	30	58	32	28	60	28	27	55
153	22	26	48	26	25	51	26	24	50	30	24	54	23	25	48
154	19	25	44	24	23	47	27	23	50	31	24	55	23	25	48
155	28	24	52	33	28	61	30	28	58	35	23	58	26	25	51
156	21	20	41	24	22	46	25	24	49	28	21	49	21	22	43
157	23	27	50	27	26	53	28	28	56	32	23	55	25	28	53
158	20	22	42	27	25	52	25	26	51	28	20	48	23	24	47
159	27	27	54	28	24	52	29	26	55	34	23	57	24	24	48
160	26	22	48	28	26	54	26	26	52	30	26	56	27	30	57
161	23	21	44	26	23	49	28	28	56	31	25	56	26	28	54
162	25	23	48	29	24	53	28	24	52	31	27	58	24	26	50

## RESULTS OF TTC

Sl.N	COMPULSORY SUBJECTS														
	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
163	25	26	51	30	24	54	27	28	55	32	25	57	24	27	51
164	27	25	52	29	29	58	27	27	54	34	30	64	29	28	57
165	23	24	47	26	26	52	28	26	54	28	22	50	24	26	50
166	30	29	59	28	30	58	30	29	59	35	27	62	28	29	57
167	20	22	42	25	23	48	26	24	50	25	24	49	23	24	47
168	22	22	44	27	23	50	24	23	47	29	24	53	24	25	49
169	30	27	57	31	28	59	32	29	61	33	29	62	28	31	59
170	26	26	52	30	23	53	30	28	58	31	29	60	26	26	52
171	20	24	44	27	23	50	27	27	54	30	24	54	23	23	46
172	25	26	51	28	22	50	30	29	59	30	27	57	25	25	50
173	22	21	43	27	22	49	26	25	51	30	24	54	23	23	46
174	24	24	48	28	24	52	28	28	56	32	29	61	27	28	55
175	23	23	46	27	22	49	27	25	52	28	25	53	24	27	51
176	27	22	49	27	26	53	28	26	54	30	26	56	26	23	49
177	21	26	47	28	23	51	27	27	54	28	23	51	24	25	49
178	24	23	47	28	23	51	27	25	52	30	26	56	29	28	57
179	24	23	47	26	25	51	28	25	53	29	25	54	29	24	53
180	20	21	41	25	23	48	26	25	51	27	24	51	23	26	49
181	19	23	42	25	22	47	25	25	50	27	22	49	22	23	45
182	25	27	52	28	27	55	28	27	55	29	30	59	32	29	61
183	23	24	47	28	24	52	25	24	49	31	25	56	26	23	49
184	27	24	51	31	23	54	29	28	57	30	29	59	26	26	52
185	26	28	54	29	27	56	30	29	59	32	31	63	27	28	55
186	26	25	51	28	24	52	28	27	55	30	27	57	25	26	51
187	23	26	49	29	23	52	28	29	57	31	26	57	25	24	49
188	25	25	50	28	24	52	26	26	52	28	25	53	24	25	49
189	21	26	47	26	24	50	28	23	51	32	21	53	25	29	54

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
190	19	25	44	22	24	46	22	24	46	24	25	49	22	25	47
191	22	23	45	28	23	51	29	28	57	29	25	54	22	27	49
192	22	23	45	25	24	49	24	23	47	27	22	49	24	24	48
193	22	21	43	25	22	47	28	24	52	30	21	51	25	23	48
194	30	29	59	34	31	65	31	29	60	35	31	66	30	31	61
195	27	22	49	29	26	55	30	25	55	29	24	53	26	27	53
196	25	22	47	30	24	54	25	23	48	30	19	49	24	25	49
197	25	27	52	29	26	55	28	25	53	31	28	59	31	29	60
198	24	29	53	28	24	52	27	21	48	26	28	54	23	27	50
199	21	23	44	26	23	49	25	24	49	31	24	55	23	24	47
200	26	25	51	28	26	54	28	27	55	31	28	59	26	29	55
201	20	25	45	28	24	52	25	25	50	28	24	52	25	22	47
202	20	25	45	23	23	46	20	25	45	24	22	46	22	28	50
203	24	24	48	30	24	54	26	23	49	26	23	49	25	22	47
204	28	27	55	28	26	54	28	25	53	30	28	58	25	22	47
205	27	29	56	31	28	59	29	28	57	27	30	57	27	27	54
206	22	27	49	29	26	55	29	29	58	31	29	60	29	26	55
207	22	26	48	27	23	50	26	22	48	27	23	50	23	22	45
208	23	27	50	28	29	57	28	27	55	29	28	57	30	27	57
209	25	24	49	28	24	52	27	24	51	21	19	40	27	24	51
210	24	25	49	26	25	51	27	27	54	24	24	48	24	23	47
211	23	25	48	26	26	52	28	28	56	31	25	56	25	22	47
212	20	24	44	22	23	45	26	22	48	22	18	40	23	23	46
213	26	29	55	29	29	58	28	28	56	29	24	53	28	25	53
214	19	22	41	26	21	47	25	21	46	24	20	44	23	22	45
215	22	23	45	28	25	53	27	24	51	27	20	47	24	23	47
216	24	28	52	30	26	56	27	24	51	26	22	48	25	25	50



## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
217	24	24	48	25	20	45	24	24	48	27	24	51	21	19	40
218	24	25	49	29	27	56	28	26	54	29	27	56	25	26	51
219	15	18	33	22	15	37	16	19	35	23	20	43	22	20	42
220	20	25	45	28	17	45	27	26	53	28	24	52	27	23	50
221	24	26	50	28	31	59	29	27	56	30	31	61	28	26	54
222	22	23	45	28	24	52	26	23	49	28	26	54	25	23	48
223	19	21	40	27	20	47	25	21	46	24	24	48	24	21	45
224	20	25	45	23	21	44	23	21	44	23	18	41	22	22	44
225	21	24	45	27	25	52	25	25	50	29	24	53	23	23	46
226	18	21	39	25	22	47	23	22	45	22	15	37	23	22	45
227	22	24	46	24	23	47	27	22	49	27	26	53	24	26	50
228	25	25	50	26	27	53	27	26	53	30	26	56	25	22	47
229	18	24	42	22	21	43	26	21	47	23	18	41	23	21	44
230	20	25	45	24	24	48	26	25	51	26	25	51	22	21	43
231	23	26	49	26	26	52	28	25	53	30	24	54	25	23	48
232	25	27	52	30	31	61	27	24	51	34	23	57	27	25	52
233	22	26	48	27	23	50	25	22	47	28	24	52	26	25	51
234	20	27	47	24	24	48	27	26	53	29	19	48	26	23	49
235	21	23	44	25	23	48	25	17	42	27	17	44	25	22	47
236	22	24	46	23	27	50	24	25	49	30	22	52	23	24	47
237	21	25	46	28	26	54	28	26	54	27	24	51	27	23	50
238	21	25	46	26	25	51	27	26	53	28	25	53	27	23	50
239	22	28	50	27	31	58	25	27	52	30	24	54	21	24	45
240	24	28	52	29	29	58	27	27	54	26	27	53	26	28	54
241	21	26	47	27	27	54	24	20	44	24	22	46	23	20	43
242	21	23	44	25	26	51	25	26	51	28	23	51	23	21	44
243	30	25	55	25	27	52	23	27	50	26	22	48	24	25	49

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Edn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
244	24	24	48	28	27	55	26	25	51	27	24	51	24	24	48
245	22	22	44	29	25	54	26	26	52	26	23	49	24	19	43
246	22	23	45	26	25	51	26	26	52	25	21	46	25	23	48
247	21	23	44	27	25	52	26	25	51	30	19	49	24	22	46
248	21	24	45	25	25	50	24	24	48	30	22	52	25	22	47
249	30	27	57	28	25	53	31	28	59	32	25	57	27	24	51
250	15	23	38	20	21	41	24	23	47	21	13	34	21	19	40
251	22	25	47	26	21	47	26	26	52	26	25	51	25	25	50
252	21	21	42	27	24	51	25	26	51	25	25	50	22	23	45
253	20	20	40	21	20	41	25	24	49	25	20	45	21	23	44
254	18	22	40	27	26	53	26	27	53	28	22	50	26	25	51
255	21	22	43	27	26	53	26	26	52	25	23	48	23	26	49
256	24	27	51	28	26	54	27	23	50	27	25	52	29	23	52
257	23	21	44	27	26	53	25	21	46	26	26	52	24	21	45
258	20	21	41	27	21	48	26	26	52	24	21	45	24	23	47
259	20	24	44	26	27	53	26	25	51	24	22	46	26	24	50
260	28	27	55	28	27	55	30	29	59	29	28	57	29	31	60
261	22	23	45	27	23	50	26	27	53	31	24	55	23	24	47
262	22	24	46	28	26	54	27	29	56	30	26	56	24	24	48
263	19	22	41	25	23	48	27	26	53	25	26	51	23	23	46
264	20	22	42	25	22	47	28	23	51	26	25	51	23	20	43
265	22	22	44	25	19	44	26	24	50	25	25	50	26	23	49
266	23	22	45	26	26	52	27	26	53	29	21	50	24	25	49
267	18	19	37	17	21	38	26	23	49	23	19	42	23	22	45
268	23	21	44	26	23	49	27	24	51	26	19	45	24	22	46
269	23	22	45	26	24	50	26	26	52	26	18	44	24	22	46
270	22	23	45	25	24	49	27	25	52	26	21	47	23	23	46

## RESULTS OF TTC

## COMPULSORY SUBJECTS

Sl.N	Principles of Education			Educational Psychology			History of Education			Educational Eva & Guidance			Ebn & National Development		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
271	28	27	55	30	26	56	30	29	59	32	24	56	27	27	54
272	23	24	47	27	27	54	28	27	55	30	24	54	25	21	46
273	17	23	40	24	23	47	25	23	48	26	24	50	23	24	47
274	22	23	45	27	25	52	26	27	53	25	20	45	25	25	50
275	20	27	47	27	27	54	27	25	52	29	26	55	25	25	50
276	25	27	52	26	28	54	25	23	48	24	23	47	24	22	46
277	20	22	42	25	22	47	25	22	47	26	25	51	25	24	49
278	24	24	48	27	28	55	28	25	53	27	24	51	24	23	47
279	20	21	41	22	26	48	25	23	48	24	18	42	22	27	49
280	23	21	44	25	19	44	27	18	45	28	14	42	26	21	47
281	18	22	40	19	23	42	23	20	43	17	22	39	15	21	36
282	20	20	40	17	19	36	20	21	41	16	20	36	18	23	41
283	26	23	49	28	28	56	27	26	53	27	26	53	24	26	50
N=	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283
AVG=	23.64	24.10	47.74	27.13	25.08	52.22	26.60	25.58	52.18	27.63	23.81	51.43	24.65	23.61	48.26
VAR=	8.57	5.30	20.77	6.14	6.54	19.55	4.40	5.76	15.77	8.71	10.28	27.35	4.86	6.70	16.67
STD=	2.93	2.30	4.56	2.48	2.56	4.42	2.10	2.40	3.97	2.95	3.21	5.23	2.21	2.59	4.08





## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
28													22	24	46	26	24	50			
29													24	26	50	30	28	58			
30	30	26	56																27	22	49
31				28	23	51				30	24	54									
32													29	26	55	25	25	50			
33													31	26	57	27	28	55			
34	26	25	51							28	24	52									
35													26	26	52	31	28	59			
36	27	25	52																26	24	50
37													25	24	49	26	25	51			
38													26	25	51	29	25	54			
39	30	25	55																25	23	48
40				25	22	47													29	26	55
41													25	24	49	26	23	49			
42													26	22	48	27	24	51			
43													25	22	47				23	22	45
44	28	22	50				24	24	48												
45	30	28	58				31	28	59												
46													27	27	54	29	27	56			
47													24	25	49	26	22	48			
48				28	22	50				29	26	55									
49	30	22	52										25	22	47						
50	30	23	53																27	23	50
51				20	19	39				30	28	54									
52													27	26	53	28	26	54			
53													31	27	58	26	26	52			

## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science			
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	
54	30	28	58										28	29	57							
55													23	26	49	25	23	48				
56													24	24	48	27	24	51				
57													28	24	52	26	25	51				
58													25	24	49	27	28	55				
59													30	27	57	26	27	53				
60													30	26	56	28	26	54				
61													26	25	51	25	24	49				
62	30	27	57										27	26	53							
63													27	27	54	26	29	55				
64				21	21	42													24	21	45	
65													28	27	55	23	26	49				
66												31	28	59		31	31	61				
67	27	26	53					28	26	54												
68												28	22	50	24	22	46					
69	27	23	50																27	22	49	
70													23	26	49				22	24	46	
71													24	26	50	23	25	48				
72	30	27	57																27	25	52	
73													30	25	55	29	25	54				
74													23	24	47	28	24	52				
75													27	22	49	28	26	54				
76													27	24	51	26	26	52				
77	25	26	51									34	30	64								
78	29	24	53									31	24	55								
79																						
80													29	28	57	30	29	59				
81	30	22	52										30	24	54	27	27	54				
																			23	23	46	



## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
82													26	27	53	28	23	51			
83	28	24	52																28	21	49
84										30	26	56				27	25	52			
85													25	25	50	27	26	53			
86													30	27	57	32	27	59			
87	30	24	54																28	19	47
88													27	26	53	29	24	53			
89	28	22	50				29	26	55												
90	30	26	56																28	24	52
91	28	22	50																26	24	50
92	30	23	53																29	28	57
93	30	26	56																26	27	53
94										27	25	52				27	26	53			
95	28	24	52																25	23	48
96										32	30	62				28	26	54			
97	28	24	52																28	25	53
98													29	26	55	28	27	55			
99													30	25	55	28	26	54			
100										27	21	48				26	21	47			
101	30	23	53										30	25	55						
102													27	27	54	31	29	60			
103	27	23	50																21	21	42
104	26	24	50							26	26	52									
105	21	23	54																27	27	54
106	27	25	52																27	25	52
107	28	23	51																24	21	45
108	27	23	50																26	23	49

## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
109													32	27	59	30	30	60			
110	30	24	54																25	23	48
111	27	24	51							25	24	49									
112													20	22	42	25	22	47			
113	28	25	53																28	24	52
114	28	24	52																26	24	50
115				24	22	46													27	22	49
116	24	24	52																28	25	53
117	28	28	59				33	29	62												
118													25	24	49	21	25	46			
119	27	22	49																28	25	53
120										26	26	52				28	23	51			
121				25	20	45													28	26	54
122				22	17	39													25	24	49
123													23	22	45	23	24	47			
124				26	22	48													26	22	48
125				28	25	53													27	25	52
126	28	27	55																23	23	46
127	27	20	47																24	25	49
128										26	23	49				26	26	52			
129													25	27	52	25	27	52			
130										21	27	48				26	25	51			
131	28	22	50																24	23	47
132										26	24	50				24	24	48			
133				26	20	46							25	24	49						
134													30	26	56	27	26	53			
135	27	26	53																25	26	51

## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science			
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	
136	30	27	57				29	29	58													
137										29	27	56				24	26	50				
138										28	28	56	27	25	52							
139	26	24	50																25	24	49	
140													22	24	46	23	25	48				
141	28	25	53																23	21	44	
142	27	25	52				27	27	54													
143	29	25	54				24	22	46													
144													27	23	50	26	27	53				
145	26	26	52				27	25	52													
146	28	25	53							35	26	61										
147													27	25	52	28	28	56				
148	27	27	54				27	25	52													
149	26	27	53				26	27	53													
150													24	26	50				25	22	47	
151													24	23	47				29	24	53	
152													28	26	54	27	31	58				
153				22	20	42													24	22	46	
154	25	23	48				26	25	51													
155	28	28	56																27	26	53	
156	27	23	50										19	22	41							
157													28	24	52	27	28	55				
158	25	23	48																24	24	48	
159				30	28	58													27	25	52	
160	27	25	52																26	28	54	
161	26	26	52																28	24	52	
162													29	25	54	27	27	54				



## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
163													25	26	51	27	26	53			
164	29	28	57																31	23	54
165	30	27	57							27	29	56									
166				31	27	58	32	30	62												
167													22	24	46	22	24	46			
168	30	22	52				27	26	53												
169										37	29	66				27	30	57			
170	24	27	51										28	25	53						
171										29	27	56				26	26	52			
172										29	28	57				29	30	59			
173	26	19	45																24	21	45
174													30	27	57	28	28	56			
175													27	26	53	27	23	50			
176	25	24	49																25	23	48
177	27	23	50																25	24	49
178										33	29	62	31	27	58						
179	33	22	55																23	23	46
180	26	21	47				26	25	51												
181	26	18	44				25	22	47												
182	30	20	50																30	30	60
183													29	27	56	26	28	54			
184	30	24	54										17	28	45						
185	31	25	56				35	28	63												
186										29	27	56				28	29	57			
187													19	25	44	25	25	50			
188										27	24	51				28	21	57			
189													27	24	51	26	28	54			

## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
190	22	24	46																20	23	43
191	30	22	52																27	26	53
192										26	26	52				24	29	53			
193				22	17	39				31	25	56									
194													32	30	62	34	31	65			
195	31	25	56																27	25	52
196	27	25	52																25	24	49
197	27	28	55							32	28	60									
198	27	25	52																26	24	50
199													23	24	47	25	25	50			
200	28	26	54																30	28	58
201													25	23	48	24	27	51			
202	19	18	37																24	23	47
203													26	21	47	27	25	52			
204													32	26	58	27	25	52			
205													27	27	54	30	29	59			
206													28	26	54	27	27	54			
207	24	21	45				24	25	49												
208	31	27	58																27	29	56
209										27	26	53				27	24	51			
210	27	22	49				27	20	47												
211	30	25	55				27	24	51												
212	25	21	46				25	22	47												
213													27	23	50	27	28	55			
214													24	22	46	24	22	46			
215										30	25	55				26	26	52			
216													25	25	50	24	24	48			

## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
217	23	28	51																19	20	39
218													24	25	49	28	29	57			
219													22	19	41	20	20	40			
220	28	23	51																28	25	53
221	29	27	56																29	28	57
222	29	24	53																25	22	47
223	26	20	46				25	28	43												
224	27	22	49							25	22	47									
225	26	23	49							28	25	53									
226				22	12	34				26	22	48									
227													26	26	52	26	25	51			
228													25	24	49	24	26	50			
229	24	18	42							25	22	47									
230	25	19	44										25	22	47						
231													24	23	47	23	25	48			
232													28	24	52	26	24	50			
233	25	20	45																26	24	50
234	25	19	44																23	17	40
235													16	23	39	22	21	43			
236													24	24	48	19	24	43			
237													27	28	55	26	27	53			
238	27	22	49																26	27	53
239	30	24	54																27	28	55
240				21	22	43													29	27	56
241													21	21	42				24	19	43
242													23	23	46				24	23	47
243	31	24	55																26	24	50



## RESULTS OF TTC

## ELECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot	Int	Ext	Tot
244													25	23	48	22	25	47			
245													24	26	50	25	23	48			
246													23	23	46	20	26	46			
247	31	23	54							23	24	47									
248													24	22	46	23	27	50			
249	33	26	59							32	27	59									
250				18	16	34													24	21	45
251	24	27	51																25	26	51
252													23	23	46	22	24	46			
253	26	19	45																22	22	44
254	27	20	47																25	23	48
255													26	25	51	21	25	46			
256													25	26	51	26	26	52			
257													25	24	49	22	22	44			
258													23	27	50	25	26	51			
259	26	22	48					27	25	52											
260	27	25	52																28	25	53
261	28	21	49																24	22	46
262													29	25	54	24	26	50			
263	25	21	46																22	20	42
264													25	22	47	20	24	44			
265	21	19	40																22	19	41
266	30	18	48																24	22	46
267	26	20	46																22	18	40
268	28	18	46																23	21	44
269	24	19	43																23	19	42
270	26	25	51																28	23	51

RESULTS OF TTC

ELLECTIVE SUBJECTS

Sl.N	Bangla			English			History			Geography			Mathematics			Science			Social Science		
	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot	Int	Bxt	Tot
271	31	28	59																25	24	49
272	27	19	46																28	23	51
273									25	22	47		23	23	46						
274							26	25	51				22	24	46						
275	30	28	58																27	23	50
276	32	23	55																26	23	49
277	20	23	48																25	20	45
278	31	22	53				26	24	50												
279	26	23	49																23	20	43
280													24	16	40	24	21	45			
281	27	19	46																21	15	36
282												23	20	43		18	21	39			
283	30	24	54				29	25	54												
N=	134	134	134	22	22	22	29	29	29	50	50	50	116	116	116	115	115	115	100	100	100
AVG=	27.66	23.75	51.58	24.27	20.77	45.05	27.69	25.59	52.93	28.36	25.36	53.64	25.69	24.66	50.34	26.09	25.64	51.79	25.65	23.43	49.08
VAR=	6.18	7.29	17.39	13.74	13.81	46.23	8.70	5.69	27.65	11.63	6.47	27.55	9.59	4.24	19.92	7.49	5.59	19.77	5.15	7.01	19.67
STD=	2.49	2.70	4.17	3.71	3.72	6.80	2.95	2.39	5.26	3.41	2.54	5.25	3.10	2.06	4.46	2.74	2.36	4.45	2.27	2.65	4.44

## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
1	53	86	26	165	355	520
2	50	75	28	153	377	530
3	56	83	25	164	366	530
4	56	84	25	165	361	526
5	54	78	25	157	398	555
6	55	90	28	173	357	530
7	53	82	26	161	379	540
8	53	75	25	153	347	500
9	55	86	30	171	389	560
10	50	72	25	147	320	467
11	53	82	26	161	377	538
12	52	78	28	158	368	526
13	53	74	28	155	368	523
14	53	75	25	153	362	515
15	54	84	30	168	318	486
16	52	81	27	160	336	496
17	52	90	22	164	343	507
18	57	81	30	168	418	586
19	58	84	28	170	398	568
20	60	83	30	173	365	538
21	52	82	18	152	337	489
22	50	83	22	155	349	504
23	52	84	20	156	322	478
24	53	82	26	161	393	554
25	53	83	20	156	314	470
26	52	75	27	154	378	532
27	50	78	27	155	344	499



## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
28	52	78	26	156	321	477
29	53	80	20	153	371	524
30	51	73	20	144	352	496
31	57	91	30	178	371	549
32	55	80	20	155	360	515
33	54	80	23	157	386	543
34	51	78	22	151	363	514
35	53	78	30	161	364	525
36	50	76	22	148	343	491
37	52	81	25	158	356	514
38	52	83	20	155	358	513
39	53	76	25	154	367	521
40	52	85	27	164	384	548
41	54	79	26	159	338	497
42	50	73	22	145	340	485
43	51	85	25	161	332	493
44	50	81	26	157	340	497
45	54	80	32	166	383	549
46	53	81	22	156	381	537
47	51	82	18	151	342	493
48	51	82	25	158	365	523
49	51	82	20	153	337	490
50	52	77	28	157	362	519
51	52	80	20	152	334	486
52	52	81	27	160	365	525
53	55	78	25	158	373	531
54	52	75	23	150	394	544

## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
55	54	80	26	160	352	512
56	52	76	30	158	359	517
57	53	79	25	157	362	519
58	50	75	30	155	342	497
59	52	77	25	154	376	530
60	54	77	20	151	376	527
61	50	72	30	152	348	500
62	52	81	25	158	365	523
63	52	90	28	170	379	549
64	50	78	18	146	330	476
65	51	77	22	150	365	515
66	50	81	25	156	403	559
67	52	76	27	155	356	511
68	52	73	25	150	332	482
69	48	82	20	150	333	483
70	48	77	22	147	310	457
71	54	78	23	155	338	493
72	50	75	27	152	380	532
73	53	85	28	166	363	529
74	52	75	25	152	321	473
75	52	84	18	154	338	492
76	51	77	26	154	340	494
77	55	75	27	157	382	539
78	51	82	27	160	353	513
79	52	86	25	163	356	519
80	50	74	20	144	365	509
81	51	77	28	156	338	494

## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
82	54	82	25	161	366	527
83	53	75	28	156	340	496
84	52	79	22	153	364	517
85	52	80	25	157	358	515
86	58	92	30	180	399	579
87	55	83	30	168	362	530
88	53	75	28	156	381	537
89	51	81	22	154	351	505
90	52	78	26	156	371	527
91	50	74	25	149	353	502
92	52	78	25	155	383	538
93	54	74	25	153	393	546
94	54	80	26	160	364	524
95	51	75	20	146	353	499
96	52	78	28	158	381	539
97	50	82	28	160	379	539
98	50	74	23	147	370	517
99	52	81	25	158	377	535
100	54	78	27	159	345	504
101	52	78	26	156	365	521
102	52	80	25	157	388	545
103	51	76	24	151	318	469
104	50	72	26	148	346	494
105	58	90	30	178	370	548
106	50	77	28	155	332	487
107	52	72	25	149	332	481
108	51	79	25	155	339	494



## Dhaka University Institutional Repository

RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
109	54	77	28	159	415	574
110	53	78	30	161	370	531
111	58	74	20	152	350	502
112	51	73	20	144	308	452
113	56	93	26	175	363	538
114	50	74	26	150	361	511
115	52	75	28	155	356	511
116	53	75	28	156	351	507
117	54	78	26	158	397	555
118	52	75	22	149	326	475
119	52	78	26	156	336	492
120	54	72	23	149	334	483
121	50	71	23	144	363	507
122	50	72	25	147	326	473
123	58	81	20	159	311	470
124	52	84	30	166	326	492
125	52	74	30	156	351	507
126	51	79	20	150	342	492
127	50	75	22	147	334	481
128	55	78	30	163	341	504
129	52	74	28	154	369	523
130	52	78	18	148	338	486
131	50	77	28	155	319	474
132	50	72	26	148	342	490
133	51	74	28	153	339	492
134	50	77	22	149	341	490
135	48	80	25	153	362	515

## Dhaka University Institutional Repository

RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
136	52	80	25	157	394	551
137	58	90	27	175	369	544
138	50	77	27	154	371	525
139	48	74	26	148	350	498
140	55	78	28	161	337	498
141	58	78	28	164	348	512
142	51	76	20	147	365	512
143	52	74	25	151	346	497
144	51	75	26	152	349	501
145	52	77	26	155	348	503
146	52	75	23	150	382	532
147	52	75	28	155	360	515
148	52	72	22	146	353	499
149	51	75	28	154	371	525
150	55	78	30	163	345	508
151	53	82	24	159	332	491
152	53	78	22	153	391	544
153	51	78	20	149	339	488
154	52	77	27	156	343	499
155	58	77	32	167	389	556
156	52	74	22	148	319	467
157	52	80	22	154	374	528
158	50	72	25	147	336	483
159	51	76	28	155	376	531
160	53	80	25	158	373	531
161	52	82	26	160	363	523
162	57	78	28	163	369	532

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
163	60	90	27	177	372	549
164	52	75	25	152	396	548
165	51	82	22	155	366	521
166	60	90	32	182	415	597
167	51	71	25	147	328	475
168	52	78	25	155	348	503
169	60	84	30	174	421	595
170	51	75	25	151	379	530
171	52	82	23	157	356	513
172	52	82	26	160	383	543
173	50	73	20	143	333	476
174	53	90	28	171	385	556
175	50	81	26	157	354	511
176	52	73	28	153	358	511
177	52	82	22	156	351	507
178	52	75	25	152	383	535
179	50	75	25	150	359	509
180	52	78	25	155	338	493
181	50	79	18	147	324	471
182	55	78	22	155	392	547
183	53	78	28	159	363	522
184	53	75	28	156	372	528
185	58	84	28	170	406	576
186	50	75	27	152	379	531
187	53	77	27	157	358	515
188	48	81	25	154	364	518
189	53	78	25	156	360	516



## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
190	52	80	27	159	321	480
191	55	82	28	165	361	526
192	52	77	27	156	343	499
193	50	74	26	150	336	486
194	57	80	28	165	438	603
195	54	75	26	155	373	528
196	56	90	28	174	348	522
197	58	80	28	166	394	560
198	52	82	25	159	359	518
199	51	75	22	148	341	489
200	51	80	20	151	386	537
201	48	79	23	150	345	495
202	50	81	21	152	316	468
203	53	74	26	153	346	499
204	54	77	24	155	377	532
205	52	90	25	167	396	563
206	51	72	25	148	385	533
207	52	76	25	153	335	488
208	52	74	27	153	390	543
209	53	79	22	154	347	501
210	51	80	25	156	345	501
211	50	77	27	154	365	519
212	50	76	25	151	316	467
213	53	84	30	167	380	547
214	51	73	27	151	315	466
215	50	72	24	146	350	496
216	52	74	26	152	355	507

## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
217	52	85	24	161	322	483
218	52	82	25	159	372	531
219	50	72	25	147	271	418
220	50	78	26	154	349	503
221	48	78	28	154	393	547
222	53	74	26	153	348	501
223	50	75	25	150	315	465
224	50	75	22	147	314	461
225	50	78	25	153	348	501
226	50	74	26	150	295	445
227	52	82	26	160	348	508
228	52	78	25	155	358	513
229	52	76	22	150	306	456
230	50	75	23	148	329	477
231	48	80	25	153	351	504
232	50	80	18	148	375	523
233	50	77	23	150	343	493
234	51	80	22	153	329	482
235	52	82	25	159	307	466
236	50	78	22	150	335	485
237	56	85	25	166	363	529
238	51	79	22	152	355	507
239	50	75	25	150	368	518
240	65	100	30	195	370	565
241	50	77	23	150	319	469
242	52	78	25	155	334	489
243	52	74	25	151	359	510

## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Pinl/Tec	Viva	Practical	Written	Practical & Written
244	53	78	25	156	348	504
245	50	81	20	151	340	491
246	53	76	20	149	334	483
247	50	81	25	156	343	499
248	55	82	25	162	338	500
249	56	78	30	164	395	559
250	51	74	24	149	279	428
251	50	75	24	149	349	498
252	52	75	30	157	331	488
253	48	75	22	145	308	453
254	54	80	22	156	342	498
255	52	75	22	149	342	491
256	52	77	22	151	362	513
257	53	84	20	157	333	490
258	51	74	30	155	334	489
259	52	77	25	154	344	498
260	53	78	22	153	391	544
261	51	77	25	153	345	498
262	51	75	30	156	364	520
263	52	74	27	153	327	480
264	52	84	25	161	325	486
265	50	76	20	146	318	464
266	51	78	23	152	343	495
267	50	83	18	151	297	448
268	50	75	25	150	325	475
269	50	82	20	152	322	474
270	48	72	20	140	341	481



## RESULTS OF TTC

## PRACTICALS AND TOTALS

Sl.N	Teaching Practice & Viva			Totals		
	Int/Mar	Finl/Tec	Viva	Practical	Written	Practical & Written
271	52	75	22	149	388	537
272	50	77	18	145	353	498
273	52	77	28	157	325	482
274	48	68	17	133	342	475
275	52	75	25	152	366	518
276	51	75	30	156	351	507
277	50	74	22	146	329	475
278	55	75	28	158	357	515
279	50	72	23	145	320	465
280	50	68	12	130	307	437
281	44	74	12	130	282	412
282	50	72	16	138	276	414
283	50	78	25	153	369	522
N=	283	283	283	283	283	283
AVG=	52.16	78.37	24.86 *	155.39 *	353.69 *	509.07 *
VAR= *	6.09	21.10	11.26 *	62.37 *	668.33 *	916.38 *
STD= *	2.47	4.59	3.36 *	7.90 *	25.85 *	30.27 *

**APPENDIX C**

**BASIC DATA ON RELIABILITY COEFFICIENTS  
OF THE TESTS ADMINISTERED BY BIDE**

## BIDE

## Compulsory Subjects

Subject	Principles of Education	Educational Psychology	History of Education	Educational Evaluation and Guidance	Education and National Development
Data					
Highest Score	73.6	78.4	69.0	74.2*	73.6
Lowest Score	42.2	41.8	33.0	34.8	42.8
n	32.4	37.6	37.0	40.4	31.8
M	14.98	16.16	16.24	16.87	12.90
r	+0.82	+0.88	+0.82	+0.84	+0.80

## Elective Subjects

Subject	Bangla	English	Mathe matics	Geography	Science	Social Science
Data						
Highest Score	71.2	68.2	74.0	73.8	73.6	77.4
Lowest Score	34.8	36.8	37.0	43.0	44.2	42.2
n	37.4	32.4	38.0	31.8	30.4	36.2
M	17.26	16.69	14.33	14.17	15.98	15.81
r	+0.86	+0.92	+0.88	+0.89	+0.88	+0.85

## Practical Teaching and Total Assessment

Data/Subject	Practical Teaching	Total Assessment
Highest Score	187	678
Lowest Score	92	397
n	96	282
M	44.42	122.21
r	+0.91	+0.98



**APPENDIX D**

**BASIC DATA ON RELIABILITY COEFFICIENTS  
OF THE TESTS ADMINISTERED BY TTC**

## TTC

## Compulsory Subjects

Subject	Principles of Education	Educational Psychology	History of Education	Educational Evaluation and Guidance	Education and National Development
Highest Score	59	65	61	67	61
Lowest Score	33	37	35	34	36
n	27	29	27	34	26
M	14.74	15.22	17.18	17.43	12.26
r	+0.70	+0.65	+0.63	+0.86	+0.64

## Elective Subjects

Subject	Bangla	English	Mathe matics	Geography	Science	Social Science
Highest Score	60	58	62	66	65	60
Lowest Score	37	34	39	43	39	36
n	24	25	24	24	27	25
M	14.58	11.05	11.34	10.64	12.79	13.08
r	+0.70	+0.90	+0.73	+0.82	+0.68	+0.71

## Practical Teaching and Total Assessment

Data/Subject	Practical Teaching	Total Assessment
Highest Score	195	603
Lowest Score	130	412
n	66	192
M	25.39	97.07
r	+0.76	+0.95

**APPENDIX E**

**BASIC DATA ON VALIDITY COEFFICIENTS OF  
THE TESTS ADMINISTERED BY BIDE**



RESULTS OF BIDE

CORRELATION BETWEEN PRACTICAL AND WRITTEN EXAMINATIONS (COMPULSORY SUBJECTS)

SUBJ.	Practical (X) and Principles of Education (Y)		Practical (X) and History of Education (Y)		Practical (X) and Educational Psychology (Y)		Practical (X) and Educational Eva & Guid (Y)		Practical (X) and Edu & National Development (Y)						
	X	Y	X	Y	X	Y	X	Y	X	Y					
DATA	98	98	307	307	307	307	307	307	307	307					
N=	307	307	307	307	307	307	307	307	307	307					
AVG=	135.42	57.18	7835.90	136.42	49.24	6749.89	136.42	57.36	7955.92	136.42	51.67	7095.86	136.42	55.70	7828.38
STD=	15.41	6.21	15.41	6.66	15.41	8.00	15.41	7.41	15.41	5.81					
!Corr Coeff(r)=		0.37	!Corr Coeff(r)=		0.32	!Corr Coeff(r)=		0.40	!Corr Coeff(r)=		0.41	!Corr Coeff(r)=		0.34	

CORRELATION BETWEEN PRACTICAL AND WRITTEN EXAMINATIONS (ELECTIVE SUBJECTS)

SUBJ.	Practical (X) and Mathematics (Y)		Practical (X) and Science (Y)		Practical (X) and Bangla (Y)		Practical (X) and English (Y)		Practical (X) and Geography (Y)		Practical (X) and Soc Science (Y)							
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y						
DATA	98	98	88	88	124	124	50	50	106	106	105	148						
N=	98	98	88	88	124	124	50	50	106	106	105	148						
AVG=	139.22	51.33	7178.77	141.18	60.18	8518.67	134.74	52.06	7079.36	135.64	53.49	7303.62	135.17	57.17	7767.08	134.2	58.01	7836.42
STD=	12.93	7.79	13.02	7.02	15.79	7.54	15.11	8.76	15.79	7.51	16.78	7.21						
!Corr Coeff(r)=		0.33	!Corr Coeff(r)=		0.24	!Corr Coeff(r)=		0.55	!Corr Coeff(r)=		0.37	!Corr Coeff(r)=		0.33				

**APPENDIX F**

**BASIC DATA ON VALIDITY COEFFICIENTS OF  
THE TESTS ADMINISTERED BY TTC**





**APPENDIX G**

**QUESTIONNAIRE ADMINISTERED TO THE  
EXPERTS FOR RATING THE  
CONTENT/CONSTRUCT VALIDITY OF THE TESTS  
USED BY BIDE**

বি,এড, পরীক্ষার কনটেন্ট/কনস্ট্রাক্ট ভ্যালিডিটি সংক্রান্ত প্রশ্নমালা

জনাব,

এই প্রশ্নমালার মাধ্যমে বাংলাদেশ ইনস্টিটিউট অফ ডিসটেন্স এডুকেশন (বাইড) কর্তৃক পরিচালিত বি,এড, পরীক্ষার বিভিন্ন অংশের কনটেন্ট ভ্যালিডিটি (বা প্রয়োজনে কনস্ট্রাক্ট ভ্যালিডিটি) নির্ধারণের জন্য তথ্য সংগ্রহ করা হচ্ছে। প্রদত্ত তথ্য আমার একটি গুরুত্বপূর্ণ গবেষণা কাজের অংশ হিসাবে ব্যবহার করা হবে। এই তথ্য অন্য কোন কাজে ব্যবহার করা হবে না। প্রাপ্ত তথ্য সম্পূর্ণরূপে গোপন রাখা হবে। আমি অনুরোধ করছি এবং আশা করছি যে, আপনি প্রশ্নগুলোর যথাযথ উত্তর দিয়ে আমাকে গবেষণা কাজে সহায়তা করবেন।

আপনার বিশ্বস্ত,

(ছালেহা খাতুন)

উত্তর দাতার নাম----- পদবী -----  
ঠিকানা----- শিক্ষক প্রশিক্ষণ মহাবিদ্যালয় -----  
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১। আপনি বি,এড, কার্যক্রমের কোন বিষয়ে বিশেষজ্ঞ (একাধিক হতে পারে)?

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২। বি,এড, কার্যক্রমের কোন কোন বিষয়ে আপনি সচরাচর শিক্ষাদান করেন?

(ক) আবশ্যিক বিষয় -----

(খ) নৈর্বাচনিক বিষয় -----

(গ) ঐচ্ছিক বিষয় -----

- ৩। এই প্রশ্নে আপনি যে সব বিষয়ে শিক্ষাদান করেন বা যে সব বিষয়ে আপনি বিশেষজ্ঞ সে সব বিষয়ে আপনার মতামত বা রেটিং দিন। বি,এড, কার্যক্রমের পরীক্ষার বিভিন্ন অংশের সাথে আপনার যে ঘনিষ্ঠ পরিচয় রয়েছে, তার ভিত্তিতে তালিকায় প্রদর্শিত প্রতিটি বিষয়ের বা কাঙ্ক্ষের ডান পাশে নির্ধারিত স্থানে উক্ত পরীক্ষার কনটেন্ট/কন্সট্রাক্ট ভ্যালিডিটি কিরূপ বলে আপনি মনে করেন তা উল্লেখ করুন। ভ্যালিডিটি অত্যন্ত উচ্চ স্তরের হলে ৪, মাঝারি স্তরের হলে ৩, নিম্ন স্তরের হলে ২ ও অত্যন্ত নিম্ন স্তরের হলে ১ লিখুন।

(ক) আবশ্যিক বিষয় নৈব্যক্তিক অংশ রচনামূলক অংশ

১। শিক্ষানীতি

২। শিক্ষা মনোবিজ্ঞান

৩। শিক্ষায় মূল্যায়ন ও নির্দেশনা

৪। শিক্ষা ও জাতীয় উন্নয়ন

৫। শিক্ষার ইতিহাস

(খ) নৈর্বাচনিক বিষয় নৈব্যক্তিক অংশ রচনামূলক অংশ

১। বাংলা

২। ইংরেজী

৩। গণিত

৪। বিজ্ঞান

৫। সমাজ বিজ্ঞান

৬। ইতিহাস

৭। ভূগোল



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(গ) ঐচ্ছিক বিষয় নৈব্যক্তিক অংশ রচনামূলক অংশ  
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১। শিক্ষা প্রশাসন  
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(ঘ) অন্যান্য কাজ

সার্বিক মূল্যায়ন  
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১। প্রাক্টিস টিচিং  
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২। মৌখিক পরীক্ষা  
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৩। আভ্যন্তরীণ মূল্যায়ন  
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৪। শিক্ষক প্রশিক্ষণ মহাবিদ্যালয় কর্তৃক পরিচালিত বি,এড, ডিগ্রীর জন্য পরীক্ষা ও মূল্যায়ন পদ্ধতির তুলনায় বাইড কর্তৃক পরিচালিত বি,এড, ডিগ্রীর পরীক্ষা ও মূল্যায়ন পদ্ধতির ভ্যালিডিটি কিরূপে নির্দিষ্ট স্থানে টিক চিহ্ন (✓) দিয়ে আপনার মতামত প্রকাশ করুন

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(ক) বেশী  
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(খ) সমান  
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(গ) কম  
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স্বাক্ষরঃ.....

তারিখঃ.....

**APPENDIX H**

**QUESTIONNAIRE ADMINISTERED TO THE  
EXPERTS FOR RATING THE  
CONTENT/CONSTRUCT VALIDITY OF THE TESTS  
USED BY TTC**

বি.এড, পরীক্ষার কনটেন্ট/কনস্ট্রাক্ট ভ্যালিডিটি সংক্রান্ত প্রশ্নমালা

জনাব,

এই প্রশ্নমালার মাধ্যমে শিক্ষক প্রশিক্ষণ মহাবিদ্যালয় কর্তৃক পরিচালিত বি.এড, পরীক্ষার বিভিন্ন অংশের কনটেন্ট ভ্যালিডিটি (বা প্রয়োজনে কনস্ট্রাক্ট ভ্যালিডিটি) নির্ধারণের জন্য তথ্য সংগ্রহ করা হচ্ছে। প্রদত্ত তথ্য আমার একটি গুরুত্বপূর্ণ গবেষণা কাজের অংশ হিসাবে ব্যবহার করা হবে। এই তথ্য অন্য কোন কাজে ব্যবহার করা হবে না। প্রাপ্ত তথ্য সম্পূর্ণরূপে গোপন রাখা হবে। আমি অনুরোধ করছি এবং আশা করছি যে, আপনি প্রশ্নগুলোর যথাযথ উত্তর দিয়ে আমাকে গবেষণা কাজে সহায়তা করবেন।

আপনার বিশ্বস্ত,

(ছালেহা খাতুন)

উত্তর দাতার নাম----- পদবী -----  
ঠিকানা----- শিক্ষক প্রশিক্ষণ মহাবিদ্যালয় -----  
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১। আপনি বি.এড, কার্যক্রমের কোন বিষয়ে বিশেষজ্ঞ (একাধিক হতে পারে)?

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২। বি.এড, কার্যক্রমের কোন কোন বিষয়ে আপনি সচরাচর শিক্ষাদান করেন?

(ক) আবশ্যিক বিষয় -----

(খ) নৈর্বাচনিক বিষয় -----

(গ) ঐচ্ছিক বিষয় -----



- ৩। এই প্রশ্নে আপনি যে সব বিষয়ে শিক্ষাদান করেন বা যে সব বিষয়ে আপনি বিশেষজ্ঞ সে সব বিষয়ে আপনার মতামত বা রেটিং দিন। বি,এড, কার্যক্রমের পরীক্ষার বিভিন্ন অংশের সাথে আপনার যে ঘনিষ্ঠ পরিচয় রয়েছে, তার ভিত্তিতে তালিকায় প্রদর্শিত প্রতিটি বিষয়ের বা কাছের ডান পাশে নির্ধারিত স্থানে উক্ত পরীক্ষার কনটেন্ট/কনস্ট্রাক্ট ভ্যালিডিটি কিরূপ বলে আপনি মনে করেন তা উল্লেখ করুন। ভ্যালিডিটি অত্যন্ত উচ্চ স্তরের হলে ৪, মাঝারি স্তরের হলে ৩, নিম্ন স্তরের হলে ২ ও অত্যন্ত নিম্ন স্তরের হলে ১ লিখুন।

(ক) আবশ্যিক বিষয় সাময়িক পরীক্ষা চূড়ান্ত পরীক্ষা

১। শিক্ষানীতি

২। শিক্ষা মনোবিজ্ঞান

৩। শিক্ষায় মূল্যায়ন ও নির্দেশনা

৪। শিক্ষা ও জাতীয় উন্নয়ন

৫। শিক্ষার ইতিহাস

(খ) নৈর্বাচনিক বিষয় সাময়িক পরীক্ষা চূড়ান্ত পরীক্ষা

১। বাংলা

২। ইংরেজী

৩। গণিত

৪। বিজ্ঞান

৫। সমাজ বিজ্ঞান

৬। ইতিহাস

৭। ভূগোল

(গ) ঐচ্ছিক বিষয়

সাময়িক পরীক্ষা

চূড়ান্ত পরীক্ষা

১। শিক্ষা প্রশাসন

(ঘ) অন্যান্য কাজ

সার্বিক মূল্যায়ন

১। প্রাক্টিস টিচিং

২। মৌখিক পরীক্ষা

৩। আভ্যন্তরীণ মূল্যায়ন

স্বাক্ষরঃ.....

তারিখঃ.....

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