

B.Sc Sem.-5 Examination

CC 303

Statistics

November-2024

[Max. Marks : 70]

Time : 2-30 Hours]

- Q. 1 (A) Explain the concept of a percentile scale and describe a practical method of its computation from raw scores. 7
- (B) Discuss in detail about T-scores and compare T-scores and standard scores. 7
- OR
- Q. 1 (A) Discuss in detail about Z-scores and standard scores. 7
- (B) Explain the concept of a percentile scale and describe a practical method of its computation from raw scores. 7
- Q. 2 (A) What is Discriminating in item analysis? Explain the step involved in method of item analysis. 7
- (B) Explain empirical review of an item. 7
- OR
- Q. 2 (A) What is criterion reference test? Explain logical review of an item. 7
- (B) Relevant information relating to four items are given in the following table. Find the difficult value or index and discriminating index for each item. (E = 100) 7

Item Number	Percentage of correct answer of the upper 27%	Percentage of correct answer of the lower 27%
22	80	70
25	55	50
28	45	40
50	70	30

- Q. 3 (A) Write a short note on test retest repetition method in reliability. 7
- (B) What is the effect of size of groups on reliability? 7
- OR
- (A) Give two method of determining reliability in detail 7
- (B) What is split half method? Also write its advantages and disadvantages. 7
- Q. 4 (A) What is meant by validity of a test? Explain the difference between the reliability and validity of a test. 7
- (B) Write in detail about test length and validity. State its formula with an example. 7
- OR
- Q. 4 (A) Which are the types of validity? Give detail account of two types. What are the criteria for determining validity? Write in detail about two criteria. 7
- (B) What are the criteria for determining validity? Write in detail. 7
- Q. 5 Attempt any Seven 14
- (i) What is difficult value index?
- (ii) What is full form of IOCI.
- (iii) What is PPDI?
- (iv) If biserial correlation coefficient value is 0.45 than what we can say about of an item?
- (v) What is operational validity?
- (vi) What are the two criteria for determining validity?
- (vii) How is validity of the test determined between the ratings and the test scores?
- (viii) What does the coefficient of validity determine?
- (ix) What is the range of reliability?
- (x) What is the formula to find the standard error of an estimated true score?
- (xi) what are mean and standard deviation of t- score?
- (xii) What is the median of stanine score?