

B.Sc Sem.-5 Examination

CC 303

Statistics

Time : 2-30 Hours]

November-2024

[Max. Marks : 70]

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?