

DATE: 29TH OCTOBER 2025

TIME: 1.30 PM - 4.30 PM

SECTION 2: STRUCTURED ESSAY QUESTIONS (60 MARKS)

Choose 04 out of the 06 questions given below and answer using the provided answer sheets.

- 2.1 Psychological assessments depend heavily on the principles of measurement, standardization, and item analysis to ensure reliability and validity. With your understanding of the Psychometric foundation;**
- a. Explain the key differences between reliability and validity in psychological testing. Provide appropriate examples to illustrate how each contributes to the overall quality of an assessment. (5 marks)
 - b. Discuss the norms in psychological measurement. (5 marks)
 - c. Critically evaluate the discrimination index by highlighting how poor values affect the fairness and usefulness of a test. (5 marks)
- 2.2 Psychological assessment requires careful consideration to ensure meaningful measurement of constructs.**
- a. Using Classical Test Theory, explain the concepts of *true score* and *error score*. Discuss your answer with an example showing how measurement errors can influence test results. (5 marks)
 - b. Describe the four major scales of measurement used in psychological assessments with practical examples. (5 marks)
 - c. Compare and contrast two different types of psychological assessments, highlighting their purposes, strengths, and limitations in applied settings. (5 marks)
- 2.3 Ethical principles and professional standards are essential in psychometric practice to safeguard test-takers' rights and to ensure the responsible use of psychological assessments.**
- a. Explain two major ethical responsibilities of Psychologists in test administration and interpretation, providing examples of how neglecting these may harm test-takers. (7 marks)
 - b. Discuss how ethical principles in psychometric testing have been violated in history by using at least two (02) examples. (8 marks)
- 2.4 Psychometrics is increasingly challenged by cultural diversity and technological change, requiring adaptations to maintain fairness and relevance.**
- a. Identify and explain two key challenges of cross-cultural psychometric assessments. (7 marks)
 - b. Discuss how technology has transformed psychometric testing with an evaluation of its benefits and potential risks. (8 marks)

2.5 A group of Psychology researchers aims to develop a new Student Academic Stress Scale (SASS) for undergraduates in Sri Lanka.

They begin by clearly identifying their purpose to measure academic stress levels in university students. They define the construct by including features such as exam-related anxiety, workload management, and peer comparison stress, while excluding unrelated factors like family stress.

The team develops an initial pool of 25 Likert-scale items. After expert review, they refine the items to 18 and administer them in a pilot study with 60 undergraduates.

Data from the pilot is entered into SPSS, and descriptive statistics are checked for item distribution. Reverse coding is applied where necessary. Cronbach's Alpha yields a reliability of 0.83, indicating strong internal consistency.

An Exploratory Factor Analysis (EFA) reveals three factors; Exam Anxiety, Time Pressure, and Peer Stress, explaining 62% of the variance.

Finally, the researchers conduct standardization by collecting responses from a large representative sample ($N=500$) across different universities. Norms are established, and cut-off scores are developed for low, moderate, and high stress levels.

- What was the main purpose of developing the Student Academic Stress Scale (SASS)?
(01 marks)
- Identify two key features included and one excluded when defining the construct in this measurement. Briefly explain the rationale that the excluded feature was not appropriate for this measurement. (3 marks)
- Explain how the researchers refined their items before the pilot study. (3 marks)
- Interpret the Cronbach's Alpha value of 0.83 obtained in SPSS. What does it suggest about the reliability of the tool? (4 marks)
- How did the researchers standardize the SASS, and why is this step important for measurement tools? (4 marks)

2.6 Write short notes on any three (03) of the following five topics. (3 x 5 marks)

- Cronbach's Alpha and its significance in reliability testing
- Exploratory vs. Confirmatory Factor Analysis
- Test-retest reliability
- The MTMM matrix
- Emic vs Etic Approach

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