

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

PG DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

TRANS DISCIPLINARY COURSE
(Common to PG Programmes)

TOOL DEVELOPMENT

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 = 10)

| Module No. | Question No. | Question | K Level | CO |
|------------|--------------|--|---------|-----|
| 1 | 1 | Which of the following is not included in the scales of measurement? a) Nominal scale b) Interval scale c) Sociometric d) Ratio scale | K1 | CO1 |
| | 2 | Nominal scale are a) Counted data b) Ranking of the items c) Equal interval d) True zero | K2 | CO1 |
| 2 | 3 | _____ is a small proportion of a population selected for observation and analysis. a) Parameter b) Sample c) Variable d) All the above | K1 | CO2 |
| | 4 | Variable can be manipulated or changed by the researcher. a) Independent variable b) Dependent variable c) Extraneous variable d) All the above | K2 | CO2 |
| 3 | 5 | Test standardization includes a) Validity b) Reliability c) Norms d) All the above | K1 | CO3 |
| | 6 | Reliability refers to a) Consistent scores of repeated measurements. b) It measures what it claims to measure. c) Anything that can vary. d) Tentative statement. | K2 | CO3 |
| 4 | 7 | Which of the following is not included in exploratory factor analysis (EFA)? a) To explore and identify the hidden factors. b) Data driven used in the early stage. c) Useful in the initial stage of scale development. d) Theory driven used in later stage of research. | K1 | CO4 |
| | 8 | Structured equation modeling (SEM) includes a) Multi-variate statistical model. b) Test hypothesized causal relationship between multiple variable. c) It combines factor analysis and regression analysis. d) All the above | K2 | CO4 |
| 5 | 9 | SEM stands for a) Standard error of the mean. b) Standard error of the median. c) Standard error of the mode. d) All the above. | K1 | CO5 |
| | 10 | Potential sources of bias include a) Social desirability bias. b) Extreme responsibility bias. c) Subjective bias. d) All the above. | K2 | CO5 |

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

| Module No. | Question No. | Question | K Level | CO |
|------------|--------------|---|---------|-----|
| 1 | 11.a. | Discuss about the steps in the measurement process. (OR) | K3 | CO1 |
| | 11.b. | Discuss about testing and measurement. | | |
| 2 | 12.a. | Discuss about rating scales. (OR) | K3 | CO2 |
| | 12.b. | Write about the types of variables. | | |
| 3 | 13.a. | Discuss about item analysis. (OR) | K3 | CO3 |
| | 13.b. | Define reliability and write about its types. | | |
| 4 | 14.a. | Discuss about exploratory factor analysis (EFA). (OR) | K3 | CO4 |
| | 14.b. | Discuss about structural equation modeling (SEM). | | |
| 5 | 15.a. | Define norms and write about its types. (OR) | K3 | CO5 |
| | 15.b. | Discuss about the standard error of the mean. | | |

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

| Module No. | Question No. | Question | K Level | CO |
|------------|--------------|---|---------|-----|
| 1 | 16 | Define measurement and discuss the properties of the scales of measurement. | K3 | CO1 |
| 2 | 17 | Define data collection and write about its types. | K3 | CO2 |
| 3 | 18 | Write about test construction. | K3 | CO3 |
| 4 | 19 | Explain about factor analysis. | K3 | CO4 |
| 5 | 20 | Explain about the norms development. | K3 | CO5 |