

D 136682**(Pages : 2)****Name.....****Reg. No.....**

**FIRST SEMESTER FIVE YEAR INTEGRATED P.G. DEGREE – FYIP CBCSS
– REGULAR EXAMINATION, NOVEMBER 2025**

Statistics

STA01IN101—STATISTICS FOR PSYCHOLOGY – 1

Time : Two Hours**Maximum : 70 Marks**

Section A

*All questions can be answered.
Each question carries 3 marks.
(Ceiling 24 marks)*

1. The number of years of education for most members of the sample in the study of psychosis onset were : 6, 7, 9, 10, 11, 12, 12, 13, 13, 13, 15, 16. Find the mean and median for the given dataset.
2. If the difference of mode and median of a dataset is 24, find the difference of median and mean.
3. Define standard deviation and explain what it tells about a group of scores.
4. What is JASP? To whom JASP would be useful ?
5. What are .jasp files ?
6. State the properties of correlation coefficients.
7. What is meant by a scatter plot ? State its purpose.
8. State the uses of regression analysis.
9. Define probability of an event. Given an example for probability of an event.
10. What are the three axioms of probability ?

(Ceiling 24 marks)

Section B

*All questions can be answered.
Each question carries 6 marks.
(Ceiling 36 marks)*

11. The scores representing the number of dreams of 10 individuals are recorded as 7, 8, 8, 7, 3, 1, 6, 9, 3 and 8. Determine (i) the mean, (ii) the variance and (iii) the standard deviation of the scores.
12. What do you understand by skewness and kurtosis ? Write the formula for finding the measures of skewness and kurtosis.

Turn over

13. Explain how data would be changed from one measurement scale to other scales in JASP.
14. What are data variables in JASP ? Name and explain the types of data variables.
15. Explain the concept of regression, correlation and rank correlation with illustrations.
16. What are two simple linear regression lines ? State the regression coefficients involved in those lines and interpret them.
17. In a random experiment of tossing a single die, find the probability of getting a number less than 4, if it is given that the toss resulted in an odd number. What is the probability of such an event if no other information is given ?
18. Define: (i) random variable, (ii) probability distribution of a random variable and (iii) distribution function of a random variable.

(Ceiling 36 marks)

Section C

*Answer any one.
The question carries 10 marks.*

19. The following table shows die respective heights X and Y (in inches) of a sample of 12 fathers and their oldest sons :

X	65	63	67	64	68	62	70	66	68	67	69	71
Y	68	66	68	65	69	66	68	65	71	67	68	70

- (a) Construct a scatter diagram, (b) Find the least-squares regression line of Y on X.
20. An urn holds 5 white and 3 black marbles. If 2 marbles are to be drawn at random without replacement and X denotes the number of white marbles, find the probability distribution for X.

(1 × 10 = 10 marks)