

15U131

Name:

Reg. No

FIRST SEMESTER EXTERNAL DEGREE EXAMINATION, DEC/JAN 2015-16
(2015 admission)

CC15UPSY1CO2—PSYCHOLOGICAL STATISTICS (complementary)

Time: Three hours

Maximum: 80 marks

Part A

Objective Type questions

a. Multiple choices. Choose correct answer:

1. Which type of distribution is represented by histogram?
a. Continuous b. Normal.
c. Discrete d. Individual
2. Which is the best measure of central tendency?
a. mean b. Median.
c. mode d. C.V
3. Quartile deviation is calculated by
a. $Q_1 - Q_2$ b. $Q_3 - Q_2$
c. $\frac{Q_3 - Q_1}{2}$ d. $\frac{Q_3 + Q_1}{2}$
4. For a symmetric distribution :
a. mean = median = mode b. mean > mode.
c. mode > median d. mean \neq median
5. Kurtosis is a measure of :
a. central tendency b. symmetry.
c. dispersion d. Flatness

(b) Fill in the blanks :

6. The class interval is determined by the formula-----
7. The empirical relationship between mean, median and mode is -----
8. The intersection point of two ogives is -----
9. When we need to know the most often recurring score in a series, we use ----- as the average.
10. If $\beta_2 > 3$, the kurtosis is known as -----

(10x1=10 marks)

Turn over

Part B

Write short notes on **all** the questions.

11. What are the uses of statistics in Psychology?
12. What are the steps of constructing frequency distribution?
13. Distinguish between continuous series discrete series?
14. Distinguish between primary data and secondary data?
15. Define a pie-diagram with construction?
16. What are the advantages of graphical representation of data
17. What are the properties of good average?
18. Compute range and coefficient of range for the following data
Scores: 5 10 15 20 25 30 35
Frequency: 3 7 11 12 9 5 1
19. Compare mean deviation and standard deviation as measure of dispersion.
20. What is meant by kurtosis?

(10 x 2 = 20 marks)

Part C

Answer any **six** questions.

21. If the class mid points in a frequency distribution of a group of weights persons are 125,135,145,155,165,175,185,195 and 205 lbs, find (i) size of class interval; (ii) class boundaries; and (iii) class limits assuming that the weights are measured to the nearest pound.
22. What are the methods of collecting primary data and what are its merits?
23. Explain various graphical representations data.
24. Calculate mode for the following data:
Class: 0 – 20 20 – 40 40 – 60 60 – 80 80 - 100
Frequency: 12 20 34 28 4
25. A class consisting of 20 boys and 30 girls. The average mark for boys is 57 with standard deviation 3.5 and the average mark for girls is 70 with standard deviation 5. Compute the combined mean and combined standard deviation.

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26. Calculate quartile deviation for the following data:

12 15 22 10 11 16 25 9 17

27. The runs scored by a batsman in 6 cricket matches are as follows. Find out the coefficient of variation?

Batsman: 45 25 60 44 62 50

28. Compute mean deviation about mean for the following data.

Scores :	2	4	6	8	10	12
Frequency :	1	2	5	4	3	1

(6 x 5 = 30marks)

Part D

Answer any two questions.

29. Explain the method of constructing different diagrams with example.

30. For the following distribution, compute the median and mode by numerical method and by graphical method

Class	: 0-10	10-20	20-30	30-40	40-50
Frequency	: 7	25	40	20	8

31. Compute Karl Pearsons coefficient of skewness for the following frequency

distribution Scores:	80-84	75-79	70-74	65-69
60-64				
Frequency :	2	8	9	4
				6

32. Define the term 'dispersion'. What are the different measures of absolute and relative dispersion? What are their merits and demerits?

(2 x 10 = 20 marks)

Section B

Very Short Answer Type Questions

Answer any ten questions not exceeding one paragraph. (10 x 2 = 20)

13. Distinguish between flight and arc methods.

14. Differentiate between positive and normative analysis.