20U139S (Pages: 2) Name.....

Reg. No.....

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCBCSS-UG)

CC15U PSY1 C02 – PSYCHOLOGICAL STATISTICS

(Psychology – Complimentary Course)

(2015 Admission - Supplementary)

Time: Three Hours Maximum: 80 Marks

Part A (Objective Type Questions)

Answer ***all*** questions. Each question carries 1 mark:

(a) Multiple Choices. Choose correct answer:

1. Mean is a measure of

   a. location b. dispersion c. correlation d. none of these

2. The coefficient of quartile deviation is defined as

   a. $\frac{Q_3 - Q_1}{Q_3 + Q_1}$ b. $\frac{Q_3 + Q_1}{Q_3 - Q_1}$ c. $\frac{Q_3 + Q_1}{2}$ d. $\frac{Q_3 - Q_1}{2}$

3. The correct relationship between A.M., G.M., and H.M. is:

   a. A.M. = G.M = H.M. b. G.M. $\geq$ A.M. $\geq$ H.M.

   c. H.M. $\geq$ G.M. $\geq$ A.M. d. A.M. $\geq$ G.M. $\geq$ H.M.

4. The data set -2, -1, 0, 1, 2 is:

   a. Positively skewed b. Negatively skewed

   c. Symmetric d. None of these

5. Which of the following is not a graphical presentation of frequency distribution?

   a. Histogram b. Scatter diagram

   c. Frequency curve d. Frequency polygon

(b) Fill in the Blanks:

6. Skewness is a measure of _____
7. Write down the empirical relationship between mean, median and mode.
8. If mean $=$ 25 and variance $=$ 25, then coefficient of variation $=$ _____
9. For a frequency data, the mean deviation is least when measured from _____
10. A normal curve is also known as _____

(10 × 1 = 10 Marks)

Part B

Answer ***all*** questions. Each question carries 2 marks.

11. Define median and write its merits.
12. Distinguish between primary and secondary data
13. What is variance?

14. What is Harmonic mean?
15. State the desirable properties of an ideal measure of dispersion.
16. Define Pearson coefficient of Skewness.
17. What is quartile deviation?
18. What is a histogram?
19. What are the uses of mode?
20. Mention the relation of mean, median and mode in a Skewed data.

(10 × 2 = 20 Marks)

Part C

Answer any ***six*** questions. Each question carries 5 marks.

21. Discuss the graphical methods used for representing a frequency distribution.
22. Give a basic idea about data.
23. Briefly explain the uses of statistics in Psychology.
24. Compare median and mode.
25. A class consisting of 20 boys and 30 girls. The average mark for boys is 67 with standard deviation 5 and the average mark for girls is 72 with standard deviation 8. Compute the combined mean and combined standard deviation.
26. Explain the term standard deviation.
27. Explain the terms Skewness and Kurtosis.
28. Calculate mean from the following data

Observation	:	5	15	25	35	45	55	65	75
Frequency	:	15	20	25	24	12	31	71	52

(6 × 5 = 30 Marks)

Part D

Answer any ***two*** questions. Each question carries 10 marks.

29. Explain different measures of central tendency.
30. Discuss different methods for graphical representation of data.
31. The length (in centimetres) of 11 small pieces of cloths were: 5, 3, 9, 12, 3, 10, 12, 21, 18, 12, 15. Find the quartile deviation.
32. Draw a histogram for the following distribution relating to the marks secured by the students of a class in statistics.

Marks	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30 – 40	40 – 60
No. of Students	4.5	2.0	3.5	2.5	4.0	5.0	2.5	4.0

(2 × 10 = 20 Marks)

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