(6 pages) **Reg. No. :** .....

Code No. : 24035 E **Sub. Code : AMEC 12**

B.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2020.

First Semester

Economics – Main

STATISTICAL METHODS – I

(For those who joined in July 2020 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. An ———— is a tentative statement
   (a) Statistical data
   (b) Hypothesis
   (c) Mathematical statistics
   (d) Survey
2. Statistics deals with ————
   (a) Groups
   (b) Aggregates
   (c) Group (or) aggregate
   (d) None of these

3. ———————— are the heading for the rows

(a) Title (b) Caption

(c) Stubs (d) Foot note

4. Line diagram is a ———————— dimensional diagram

(a) one (b) two

(c) three (d) none of these

5. Median refers to the ———————— value in a distribution

(a) First (b) Second

(c) Last (d) Middle

6. What is the mode for the following data?

60, 77, 74, 62, 77, 70, 68, 65, 80, 77

(a) 60 (b) 62

(c) 77 (d) 74

7. Coefficient of range

(a) $\frac{L+S}{L-S}$ (b) $\frac{L-S}{L+S}$

(c) $\frac{L-S}{L}$ (d) $\frac{L-S}{L}$

8. ———————— introduced the concept of standard deviation in the year 1893

(a) Secrist (b) Webster

(c) Karl Pearson (d) Bowley

9. Third moments about the origin is ————————

(a) Skewness

(b) Kurtosis

(c) Standard deviation

(d) Mean deviation

10. In a negatively skewed distribution

(a) Mean > Median > Mode

(b) Mean > Mode > Median

(c) Mean < Median < Mode

(d) Mean < Mode < Median

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Answer should not exceed 250 words.

11. (a) Explain the scope of statistics.

Or

(b) What are the precautions in the use of secondary data?

12. (a) Explain the types of classification.

Or

(b) Mention the rules for tabulation.

13. (a) What are the advantages of median?

Or

(b) Calculate the mode for the following data:

x :	15	25	35	45	55	65	75
f :	185	77	34	180	136	23	50

14. (a) State the qualities of a good measure of dispersion.

Or

(b) Calculate standard deviation for the following data:

43, 48, 65, 57, 31, 60, 37, 48, 78, 59.

15. (a) Write a note on relative measure of skewness.

Or

(b) Calculate μ_1, μ_2, μ_3 and μ_4 for the following data :

x :	0	5	2	6	4
f :	5	10	15	20	25

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Answer should not exceed 600 words.

16. (a) Explain the limitations of statistics.

Or

(b) Explain the various methods of collecting primary data.

17. (a) What are the types of tables?

Or

(b) Explain the types of diagrams.

18. (a) Discuss the merits and demerits of Arithmetic mean.

Or

(b) Calculate the median for the following data:

x :	18-22	26-30	30-34	22-26	38-42
f :	120	280	260	125	184
x :	54-58	34-38	42-46	50-54	46-50
f :	53	155	162	75	86

19. (a) Calculate mean deviation from mean for the following data:

x :	0-20	20-40	40-60	60-80	80-100
f :	15	20	25	10	30

Or

(b) Find the quartile deviation and the coefficient of quartile deviation for the following data:

x :	5-7	8-10	11-13	14-16	17-19
f :	14	24	38	20	4

20. (a) Calculate Karl Pearson's coefficient of skewness for the following data:

x :	0-10	10-20	20-30	30-40	40-50
f :	8	11	26	9	6

Or

(b) Calculate Bowley's coefficient of skewness for the following data :

x :	0-20	20-50	50-100	100-250	250-500	500-1000
f :	20	50	69	30	25	19

———————