(7 pages)

Reg. No. :.....

Code No. : 12585 E **Sub. Code : AMEC 12**

B.A. (CBCS) DEGREE EXAMINATION, APRIL 2021.

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. Statistics are _____ statements.

   (a) numerical

   (b) quality

   (c) numerical and quality

   (d) none of these

2. Method of collecting primary data

(a) Interview

(b) Indirect Investigation

(c) Questionnaire

(d) All the above

3. General Purpose Table is also called as _____ Table.

(a) Simple (b) Complex

(c) Special Purpose (d) Informative

4. The value of _____ can be estimated graphically.

(a) Mean (b) Median

(c) Mode (d) Median and Mode

5. In a bimodal series, the formula to calculate mode is

(a) 2 Median – 3 Mean

(b) 3 Median – 2 Mean

(c) Median – Mean

(d) Mean – Median

6. What is the mean for the following data?

21, 30, 28, 40, 26, 34, 40, 9, 15, 57

(a) 40 (b) 42.5

(c) 30 (d) 30.25

7. Estimate range for the following data :

8, 10, 5, 9, 12, 11

(a) 8 (b) 9

(c) 10 (d) 7

8. Coefficient of variation =

(a) $\frac{\sigma}{\overline{X}}$ (b) $\frac{\sigma}{\overline{X}} \times 100$

(c) $\frac{\overline{X}}{\sigma}$ (d) $\frac{\overline{X}}{\sigma} \times 100$

9. Fourth Moment about the origin is _____.

(a) Kurtosis

(b) Skewness

(c) Mean Deviation

(d) Quartile Deviation

10. In a symmetrical distribution

(a) Mean > Median

(b) Mean > Mode

(c) Mode > Median

(d) Mean = Median = Mode

PART B — (5 × 5 = 25 marks)

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

Answer should not exceed 250 words.

11. (a) List the sources of secondary data.

Or

(b) What are the requirements of a good questionnaire?

12. (a) Mention the parts of a table.

Or

(b) What are the rules for drawing a diagram?

13. (a) State the qualities of a good average.

Or

(b) Calculate the median for the following data.

X	1000	1500	800	2000	2500	1800
f	24	26	16	20	6	30

14. (a) Explain the merits and demerits of standard deviation.

Or

(b) Calculate the Quartile Deviation for the following data.

480, 650, 370, 600, 310, 240, 1200, 1600, 780, 570, 2100

15. (a) What do you understand by skewness of a distribution?

Or

(b) Calculate Kurtosis for the following data :

2, 4, 6, 8, 10.

PART C — (5 × 8 = 40 marks)

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

Answer should not exceed 600 words.

16. (a) Explain the functions of Statistics.

Or

(b) Write short notes on :

(i) Indirect and Investigation

(ii) Mailed Questionnaire

(iii) Telephone Enquiries.

17. (a) Explain the types of Classification.

Or

(b) Explain the various types of Graphs.

18. (a) Discuss the merits and demerits of mode.

Or

(b) Calculate the arithmetic mean for the following data :

X	0-10	10-20	20-30	30-40	40-50
f	10	15	18	20	7

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

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

Or

(b) Estimate the standard deviation for the following data :

X	78-82	73-77	68-72	63-67	58-62
f	2	6	7	12	18
X	53-57	48-52	43-47	38-42	33-37
f	13	9	7	4	2

20. (a) Estimate the Karl Pearson's Coefficient of skewness for the following distribution.

X	100-110	110-120	120-130	130-140
f	4	16	36	52
X	140-150	150-160	160-170	170-180
f	64	40	32	11

Or

(b) Calculate Bowley's Coefficient of Skewness for the following data :

X	0-20	20-40	40-60	60-80	80-100
f	4	18	20	6	2

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