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

Code No. : 12438 E Sub. Code : CMEC 12

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

First Semester

 ${\rm Economics}-{\rm Core}$

STATISTICS FOR ECONOMICS — I

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — $(10 \times 1 = 10 \text{ marks})$

Answer ALL questions.

Choose the correct answer :

- 1. Primary data as compared to secondary data are
 - (a) Less reliable (b) More reliable
 - (c) Equally reliable (d) None of the above
- 2. Data collected from "Hindu" news paper is an example of
 - (a) Primary Data (b) Secondary Data
 - (c) Ordinary Data (d) None of these

- 3. Classification is the process of arranging data in
 - (a) Different columns
 - (b) Different rows
 - (c) Different columns and rows
 - (d) Grouping of related facts in different classes
- 4. Diagrams and graphs are tools of
 - (a) Collection of data
 - (b) Analysis
 - (c) Presentation
 - (d) Summarisation
- 5. Which average is most affected by extreme values?
 - (a) Mode (b) Median
 - (c) Harmonic Mean (d) Arithmetic Mean
- 6. Which of the following is the most unstable average?
 - (a) Mode
 - (b) Median
 - (c) Geometric Mean
 - (d) Harmonic Mean

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- 7. The sum of deviations from the mean is always
 - (a) The least (b) The greatest
 - (c) Zero (d) One

8. The quartile deviation includes the

- (a) First 50% (b) Last 50%
- (c) Central 50% (d) None of these
- 9. When coefficient of skewness is zero, the distribution is
 - (a) J shaped (b) U shaped
 - (c) Symmetrical (d) Non Symmetrical
- 10. When the value of co-efficient of Kurtosis is equal to three, it is
 - (a) Mesokurtic (b) Platykurtic
 - (c) Non-symmetrical (d) Heptokurtic

PART B — $(5 \times 5 = 25 \text{ marks})$

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

Each answer should not exceed 250 words.

11. (a) Discuss the requirements of a good questionnaire.

 \mathbf{Or}

(b) Explain the advantages of direct personal investigation as compared with the other methods generally used in collecting data.

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12. (a) Draw an ogive by less than method and determine the number of companies getting profits between Rs. 45 crores and Rs. 75 crores:

Profits (Rs. Crores) No. of Companies

10-20	8
20-30	12
30-40	20
40-50	24
50-60	15
60–70	10
70-80	7
80–90	3
90–100	1

 \mathbf{Or}

- (b) What are the points to be taken into consideration while presenting a table diagrammatically?
- 13. (a) Calculate geometric mean of the following : 50 72 54 82 93

Or

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[P.T.O.]

	(b) The monthly income of 10 families in rupees in a certain village are given below :										
Fa	mily :	1	2	3	4	5	6	7	8	9	10
Inc	come :	85	70	10	75	500	8	42	250	40	36
		Calculate the Harmonic mean.									
14.	(a)	Calc data	ulate	e me	an c	leviat	ion	fror	n the	follo	owing
			X	: 2	4	6 8	1	0			
			f:	1	4	6 4	1				
	Or										
	(b)	Calculate the standard deviation from the following data : 14, 22, 9, 15, 20, 17									
15.	(a)	The marks of 10 students in a class are given below. Calculate Bowley's co-efficient of skewness :									
		10, 12, 14, 13, 20, 27, 15, 18, 36, 25									
		Or									
	(b)	If it is given that $\sum f X = -100$, $\sum f x^2 = 400$,									
$\sum f x^3 = -1000$, $\sum f X^4 = 5000$ and $N = 10$; find the first four moments.											

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PART C — $(5 \times 8 = 40 \text{ marks})$

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

Each answer should not exceed 600 words.

16. (a) Discuss the various method of collecting primary data.

 \mathbf{Or}

- (b) Distinguish between primary data and secondary data.
- 17. (a) Represent the following data by a pie diagram.

Items	Expenditure (in Rs.)
Food	87
Clothing	24
Recreation	11
Education	13
Rent	25
Miscellaneous	20

 \mathbf{Or}

(b) Explain the general rules for drawing graphs.

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18. (a) Calculate arithmetic mean from the following data :

Class Interval	Frequency
410-419	14
420–429	20
430–439	42
444-449	54
450-459	45
460-469	18
470–479	7
	Or

(b) Calculate mode value from the following data:

Income Rs.	No. of Persons	
Less than 100	8	
100–200	14	
200-300	13	
300-400	15	
400–500	7	
500-600	3	
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19. (a) Discuss the merits and demerits of different methods of dispersion.

Or

- (b) Calculate coefficient of variation from the following data :
 - Marks
 No. of students

 Below 20
 8

 20-40
 12

 40-60
 30

 60-80
 20

 80-100
 10
- 20. (a) Find the coefficient of skewness from the data given below :

 Size :
 3
 4
 5
 6
 7
 8
 9
 10

 Frequency :
 7
 10
 14
 35
 102
 136
 43
 8

 \mathbf{Or}

(b) Explain kurtosis with the help of diagram.

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