Reg. No. ☐☐☐☐☐☐☐☐☐☐☐☐

BBABMCN 303

III Semester B.B.A. Degree Examination, December 2023/January 2024
(NEP – 2020) (2022 – 23 Batch Onwards)
STATISTICS FOR BUSINESS DECISIONS

Time : 2 Hours

Max. Marks : 60

Instructions : 1) Show working notes **wherever** necessary.
2) Only simple calculators may be used.

SECTION – A (2 marks each)

Answer **any five** of the following : (2×5=10)

1. What is statistics ?

2. The mean and median of a slightly skewed distribution are 12 cms and 12.7 cms respectively. Find the mode.

3. What is skewness ?

4. What is the range of Karl Pearson's coefficient of correlation ?

5. What is meant by seasonal trend ?

6. State the various types of index numbers.

7. What are the two methods of collection of data ?

SECTION – B (5 marks each)

Answer **any four** of the following : (5×4=20)

8. Explain the functions of statistics in brief.

9. Draft a blank table to show the strength of a college according to faculty (Science, Arts and Commerce) class (PUC and Degree) and sex.

10. Represent the following data regarding population of India by simple bar chart.

Census Year	Population (Crore)
1931	28
1941	32
1951	36
1961	44
1971	55
1981	68
1991	85
2001	103

11. Calculate median from the following data.

Marks	Students
10 – 15	5
15 – 20	7
20 – 25	3
25 – 30	6
30 – 35	3
35 – 40	1

12. Calculate Co-efficient of Skewness from the following data.

Class	Frequency
0 – 20	8
20 – 40	2
40 – 60	15
60 – 80	10
80 – 100	5

13. Explain the steps involved in the construction of an index number.

14. Compute Fishers Index number from the following data.

	Base Year		Current Year	
Item	Price	Total value	Price	Total value
A	50	100	60	180
B	40	120	40	200
C	100	100	120	120
D	20	80	25	100

SECTION – C (**10 marks each**)

Answer **any three** of the following :   (10×3=30)

15. The following table gives the height of girls and height of boys in the school, calculate Karl Pearson Co-efficient of correlation.

Height of girls	Height of boys			
	10 – 20	20 – 30	30 – 40	40 – 50
10 – 20	20	26	37	–
20 – 30	8	14	18	3
30 – 40	–	4	4	6
40 – 50	–	–	–	–

16. Fit a straight line trend by the method of least square and estimate the production during 2013.

Year	Production (000)
2005	18
2006	20
2007	23
2008	25
2009	24
2010	28
2011	30
2012	29

17. The following data relate to monthly income and expenditure on food of 10 families.
    a) Find two regression equations.
    b) Find the most likely expenditure when income is Rs. 50.

Income (000)	Expenditure (000)
32	20
35	22
40	25
42	27
45	30
57	34
43	25
30	20
34	21
42	26

18. From the following table marks obtained by A and B in ten tests of 100 marks each. Find out who is more intelligent and who is more consistent.

A	B
25	10
50	70
45	50
30	20
70	95
42	55
36	42
48	60
34	48
60	80

19. Compute the consumer price index number by using the following data.

Item	Weight	Price Base year	Current year
Food	10	150	225
House rent	5	50	150
Clothing	2	30	60
Lighting	3	30	75
Others	5	50	75

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