

18. Find the inverse of

$$A = \begin{bmatrix} 2 & 2 \\ 3 & 5 \end{bmatrix}.$$

PART - C (2 × 20 = 40)

Answer any TWO questions.

All questions carry equal marks.

19. Find mean, median and mode for the following:

x	f
0 - 9	5
10 - 19	14
20 - 29	28
30 - 39	24
40 - 49	18
50 - 59	7
60 - 69	3
70 - 79	1

Register Number :

Name of the Candidate :

7 3 7 9

B.B.A. DEGREE EXAMINATION, 2007

(SECOND YEAR)

(PART - III)

(PAPER - VIII)

260. QUANTITATIVE METHODS

(Including Lateral Entry)

May]

[Time : 3 Hours

Maximum : 100 Marks

PART - A (10 × 2 = 20)

Answer any TEN questions.

All questions carry equal marks.

1. State any two uses of statistics in business.
2. What do you mean by sampling ?
3. Define 'Median'.

Turn over

- 4. Give the formula for ‘Semi - interquartile range’.
- 5. What is correlation ?
- 6. Write a note on “Time series”.
- 7. Write down any two characteristics of index number.
- 8. State the Addition theorem on probability.
- 9. What is normal distribution ?
- 10. Define finite set.

11. If

$$A = \begin{bmatrix} 2 & 3 \\ -1 & 4 \end{bmatrix}$$

and $B = \begin{bmatrix} 5 & -2 \\ 1 & -3 \end{bmatrix},$

find $A + B.$

12. If

$$A = [1, 2, 4, 6, 8];$$

$$B = [2, 3, 4, 5, 6],$$

find $A \cap B.$

PART - B (4 × 10 = 40)

Answer any FOUR questions.

All questions carry equal marks.

- 13. What are the disadvantages of graphical presentation ?
- 14. What is Venn diagram ? - Illustrate.
- 15. Calculate mean deviation about the mean for the following data :

x:	5	15	25	35	45	55	65
f:	8	12	10	8	3	2	7

16. From the data given below, calculate Spearman’s rank correlation co-efficient :

Marks in Maths	:	85	60	73	40	90
Marks in Accountancy	:	93	75	65	50	80

17. Calculate Fisher’s Ideal Index Number :

	2004 - 05		2005 - 06	
	Price (Rs.)	Quantity (Units)	Price (Rs.)	Quantity (Units)
A	2	74	3	82
B	5	125	4	140
C	7	40	6	33

Turn over

20. Fit a straight line trend by the method of least squares and estimate the trend components. What is the estimated value in 2008 ?

Year :	2000	2001	2002	2003	2004	2005	2006
Value:	23	22	25	21	17	20	19

21. The probabilities of 3 students A, B, and C solving a problem in statistics are $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$. A problem is given to all the 3 students, what is the probability that,

- (i) No one will solve the problem ?
- (ii) Only one will solve the problem ?
- (iii) Atleast one will solve the problem ?

22. Solve the following system of simultaneous equation by Cramer's rule :

$$2x + 3y + 3z = 22$$

$$x - y + z = 4$$

$$4x + 2y - z = 9$$

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