

Roll No.

Total No. of Pages : 03

Total No. of Questions : 17

MBA/MBA(IB) (2018 & Onwards) (Sem.-1)

QUANTITATIVE TECHNIQUES

Subject Code : MBA-103-18

M.Code : 75404

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

- 1. SECTION-A contains EIGHT questions carrying TWO marks each and students has to attempt ALL questions.**
- 2. SECTION-B consists of FOUR Subsections : Units-I, II, III & IV. Each Subsection contains TWO questions each carrying EIGHT marks each and student has to attempt any ONE question from each Subsection.**
- 3. SECTION-C is COMPULSORY carrying TWELVE marks.**

SECTION-A

Answer briefly :

1. What is statistics in singular sense?
2. What do you understand by measure of central tendency?
3. What is skewness and kurtosis?
4. What is Rank correlation?
5. Distinguish between regression and correlation.
6. What is the importance of probability in decision making?
7. What is a Binomial distribution?
8. What are the rules for network construction?

SECTION-B

UNIT-I

9. Obtain median from the following data :

Sr. No.	1	2	3	4	5	6	7	8	9	10
X	384	391	405	522	591	672	753	777	1490	2488

10. Calculate Karl Pearson's coefficient of skewness :

X :	70-80	80-90	90-100	100-110	110-120	120-130	130-140	140-150
F:	12	18	35	42	50	45	30	8

UNIT-II

11. Find out coefficient of correlation between age of husband and age of wife.

Age of Husband	23	27	28	29	30	31	33	35	36	38
Age of wife :	18	21	23	24	23	26	28	29	28	30

12. What is Scatter Diagram? What is its use?

UNIT-III

13. The number of defects per unit of a sample of 330 units of bulbs. Manufactured was as follows :

No. of defects :	0	1	2	3	4
No. of units :	214	92	20	3	1

Fit a Poisson distribution to the data (given $e^{-0.439} = 0.6447$)

14. A bag has 8 white and 4 red stones. Five stones are drawn at random. What is the probability that 27 them are red and 3 white?

UNIT-IV

15. Describe what is Vogel's approximation method to transportation problem.
16. What is an assignment problem? Describe Hungarian method in assignment problem.

SECTION-C

17. A project consists of 10 activities. The activities and their time estimates are shown below :

	Time		
Activity	Optimistic time (to)	Most likely time (tm)	Passimistic time (tp)
1-2	1	2	3
2-3	1	4	7
2-7	2	3	4
3-4	1	3	5
3-5	0	0	0
4-6	0	0	0
5-6	3	5	13
7-8	4	8	12
6-9	4	6	14
8-9	1	2	3

- a) Draw a network diagram
- b) Calculate expected time for the activities.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.