

Code: 17BA1T6

I MBA - I Semester-Regular Examinations – December 2017**QUANTITATIVE ANALYSIS FOR BUSINESS DECISION**

Duration: 3 hours

Max. Marks: 60

SECTION-A**1. Answer the following:****5 x 2 = 10 M**

- a) Explain the mean, median and mode.
- b) Describe the concepts of probability.
- c) Describe about small sample tests.
- d) Discuss briefly about properties of linear programming.
- e) Explain the concept of two-person zero sum game.

SECTION – B**Answer the following:****5 x 8 = 40 M**

2. a) For a certain frequency table, which has only been partly reproduced here, if $N=100$ and mean was found to be 30. Calculate the missing frequencies.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	10	?	25	30	?	10

(OR)

- b) State the various types of averages.
3. a) Discuss the relationship between normal and binominal distribution.

(OR)

b) While conducting population survey of a city the enumerator noticed that 40% of the male population was illiterate. If the trend continuous, workout the probability that out of a random sample of 2,00,000 males population, the number of illiterates will be:

i) Less than 75,000

ii) More than 82,000

4. a) A group of seven-week old chickens reared on a high protein diet weigh 12,15,11,16,14,14 and 16 ounces. A second group of five chickens, similarly treated expect that they receive a low protein diet weigh 8,10,14,10 and 13 ounces. Test at 5% level whether there is significant evidence that additional protein has increased the weight of the chickens.

(OR)

b) What is procedure for testing hypothesis?

5. a) A manufactures as 75 kgs of cashew nuts and 120 kgs pea nuts. These are mixed and packed into one kg of packages as follows. A low grad mixture that contains. 250 gms cashew nuts and 750 gms pea nuts. A high grade mixture that contain 500 gram's of each. On the low grad mixture the manufacture gets a profit of. 25 piece per package and on high grad. The profit is 45 pick per package. How many packages made to obtain a maximum profit?

(OR)

b) Describe about formulation of linear programming.

6. a) What are the characteristics and assumptions of transportation problem?

(OR)

b) Determine the basic feasible solution to the following transportation problem by Vogel's approximation.

Plants	Warehouse				
	W1	W2	W3	W4	Supply
P1	48	60	56	58	150
P2	45	55	53	60	250
P3	50	65	60	62	350
P4	52	64	55	61	250
Demand	200	350	250	200	1000

SECTION-C

7. Case Study

1x10=10 Marks

The assignment cost of assigning anyone operator to any one machine is given in the following table. Find the optimal assignment.

		Operators				
		I	II	III	IV	V
Machine	A	40	40	35	25	50
	B	42	30	16	25	27
	C	50	48	40	60	50
	D	20	19	20	18	25
	E	58	60	59	55	53