

**MASTER OF BUSINESS
ADMINISTRATION (MBACN)**

Term-End Examination

June, 2013

**MCN-006 : QUANTITATIVE ANALYSIS FOR
BUSINESS DECISIONS**

Time : 3 hours

Maximum Marks : 100

*Note : Answer **any five** questions. All questions carry **equal** marks.*

1. The radius of a cylinder is increasing at the rate of 2m/sec and its altitude is decreasing at the rate of 3m/sec. Find the rate of change of volume when the radius is 3 meters and the altitude is 5m. **20**
2. There are 4 hotels in a certain town. If 3 men check in to hotels in a day, what is the probability that each checks in to a different hotel ? **20**
3. How far can quantitative techniques be applied in management decision-making ? Discuss, in detail with special reference to any functional area of management pointing out their limitation and why ? **20**

4. Calculate mean deviation from the median by the short cut method in the following series : 20

Marks secured by 15 students

78, 72, 75, 73, 45, 49, 25, 71, 74, 42, 37, 32, 62, 61, and 43.

5. Two yarns spun to the same count are tested for their strength and the following results are obtained : 20

	Numbers in Sample	Sample Mean	Sample S.D.
Yarn A	9	42	7.5
Yarn B	4	50	6.5

Is the difference in mean strength significant ?

6. Briefly comment on *any four* of the following : $5 \times 4 = 20$
- (a) Skewness means "Lack of Symmetry".
 - (b) Correlation is a statistical tool which studies their relationship of two variables.
 - (c) Sample space is the collection of all possible distinct outcomes of an experiment.
 - (d) Simplest case of a continuous distribution is the uniform distribution.
 - (e) Cluster or area sampling also has several disadvantages.

7. Distinguish between on *any four* of the following : **5x4=20**
- (a) Independent Events and Complementary Events
 - (b) Mean and Standard deviation
 - (c) Random Sampling and Non - Random Sampling
 - (d) Coefficient of correlation and coefficient of determination
 - (e) Skewness and Kurtosis
8. Write short notes on *any four* of the following : **5x4=20**
- (a) Scatter diagram
 - (b) F-distribution
 - (c) Degeneracy
 - (d) Tabulation of data
 - (e) Mutually Exclusive Events
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