

MP-304/204(New)

December - Examination 2018

**Master of Business Administration - II Year
Examination****Quantitative Techniques****Paper - MP-304/204(New)****Time : 3 Hours]****[Max. Marks :- 80**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A**8 × 2 = 16**

(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) Define Time series.
- (ii) What is Coefficient of Regression?
- (iii) What is the full form of CPM?
- (iv) Define differentiation.
- (v) What do you understand by Co-Factor of Determinant?
- (vi) Define Business forecasting.
- (vii) Write down the name of four types of mathematical model.
- (viii) Define EVPI.

Section - B**4 × 8 = 32**

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 8 marks.

- 2) Write down the Properties of Regression Coefficient.
- 3) Critically identify the role of operational research in decision making.
- 4) Write a note on opinion poll.
- 5) Is there a relationship between the sugar content and the number of calories in 12 ml cough syrup? To determine if there is one a random sample was taken of cough syrups sugar content and calories data in given table. Find the regression equation from the formula.

Sugar content	Calories in 12 ml
4.70%	163
6.70%	215
8.10%	222
0.40%	70
4.15%	104
5.10%	162
5.00%	158
5.00%	155
4.70%	158
6.20%	195

- 6) Find the rank correlation between the width and depth of river banks of a river at different places.

Width (in cm.)	0	50	150	200	250	300	350	400	450	500
Depth (in cm.)	0	10	28	42	59	51	73	85	104	96

- 7) Write down the Characteristics of a Good Model.
 8) Write a note on Bayesian Decision Rule.
 9) Write a note on Time Reversal Test.

Section - C

$2 \times 16 = 32$

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 16 marks.

- 10) Write a note on the following:
- (i) Normal Distribution
 - (ii) Poisson Distribution
- 11) “Index numbers are the devices for measuring differences in the magnitude of a group of related variables.” Discuss this statement and point out the important uses of index numbers.
- 12) What do you mean by probability? Discuss the major approaches of Probability.
- 13) Write short note on the following:
- (i) Deterministic decision Model
 - (ii) Probabilistic decision Model