

MP-304 (Old) / MP-204 (New)

December - Examination 2015

MBA IInd Year Examination**Quantitative Techniques****Paper - MP-304 (Old) / MP-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 x 2 = 16

(Very Short Answer Type Questions)

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

- 1) (i) What is consumption function?
- (ii) What do you understand by simultaneous linear equations?
- (iii) What is multiple correlation?
- (iv) Define Barometric Techniques.
- (v) Explain Random Experiment
- (vi) A bag containing 10 green and 15 red balls. A ball is drawn at random. What is the probability that it is red?

(vii) What is Iconic Model?

(viii) What do you mean by parametric programming?

Section - B

4 x 8 = 32

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

- 2) Find the sum of all numbers between 500 and 1000 which are divisible by 11.
- 3) Explain the role of quantitative techniques.
- 4) Calculate the coefficient of correlation from the following data by Spearman's method of Rank Differences.

x	105	123	94	101	80	125	140	115	90	102
y	82	104	41	65	45	125	99	80	54	75

- 5) Define time series. State the main components of time series.
- 6) What is probability? Explain its different concepts giving suitable example.
- 7) In a Binomial Distribution mean is 3 and variance is 2. Find n, p and q.
- 8) Solve by using dominance property the following game

			B											
			I	II	III									
A	1	<table style="margin: 0 auto;"> <tbody> <tr> <td style="padding: 0 10px;">1</td> <td style="padding: 0 10px;">7</td> <td style="padding: 0 10px;">2</td> </tr> <tr> <td style="padding: 0 10px;">6</td> <td style="padding: 0 10px;">2</td> <td style="padding: 0 10px;">7</td> </tr> <tr> <td style="padding: 0 10px;">6</td> <td style="padding: 0 10px;">1</td> <td style="padding: 0 10px;">6</td> </tr> </tbody> </table>	1	7	2	6	2	7	6	1	6			
	1		7	2										
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6	1	6												
2														
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- 9) What is linear programming? Explain application in various areas.

Section - C

2 x 16 = 32

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

- 10) (i) The A. M. between two numbers is 20 and their G. M. is 16. Find the numbers.
 (ii) Discuss fully the limitations of quantitative techniques.
- 11) From the following data calculate real income index numbers:

Year	2008	2009	2010	2011	2012	2013	2014
Salary (₹)	200	240	350	360	360	400	420
Price Indices	100	160	280	300	320	350	360

- 12) Briefly explain the different decision rule adopted in decision making under condition of uncertainty.
- 13) A project consisting of the following activities:

Activity	Optimistic Time (to)	Passimistic Time (tp)	Most likely Time (tm)
1 – 2	3	15	6
1 – 3	2	14	5
1 – 4	6	30	12
2 – 5	2	8	5
2 – 6	5	17	11
3 – 6	3	15	6
4 – 7	3	27	9
5 – 7	1	7	4
6 – 7	2	8	5

- (i) Draw the network.
 (ii) Determine the expected time and variance for each activity.
 (iii) Find critical path.