



Code: 9EBS105

MBA &amp; MBA (Finance) I Semester Supplementary Examinations June/July 2018

**STATISTICAL METHODS FOR MANAGEMENT**

(For students admitted in 2013 (LC), 2014, 2015 &amp; 2016 only)

Time: 3 hours

Max. Marks: 60

Answer any FIVE questions  
All questions carry equal marks

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- 1 Explain the rules of classification and tabulation in statistics. Why is classification and tabulation needed?
- 2 Explain the various types of sampling techniques in use in statistics.
- 3 Two business are studied over five years for profitability. The data is given below. Compare the two using at least two central tendencies and two measures of dispersion.

	1	2	3	4	5
Firm A	33%	22%	-15%	40%	10%
Firm B	17%	18%	20%	18%	19%

- 4 Cricketers are studied for the number of hours of practice put in and the runs scored in a season. Find the coefficient of correlation and comment on it.

	1	2	3	4	5	6	7
Practice/day (hrs)	5	7	8	1	2	4	3
Runs scored	350	800	850	200	250	500	400

- 5 Discuss the meaning and use of regression analysis. How is accuracy measured? What is error of prediction in regression analysis?
- 6 Two boxes B1 and B2 have marbles. B1 has 10 red and 15 blue marbles. B2 has 15 red and 10 blue marbles. If a marble is drawn in random from B1, what is the probability it is red? If the same is done in B2 what are the chances it is blue? If a marble is drawn from each box, what are the chances both are red? If one marble drawn from one of the boxes happens to be blue, what are the chances it came from B2?
- 7 Find the second derivatives for the following functions:
  - (i)  $Y = e^x (x^2 + 3x + 10)$ .
  - (ii)  $Y = \sin x \cos x$ .
  - (iii)  $Y = 5x^3 + 4x^2 + 2x - 150$ .
  - (iv)  $Y = x + (1/x)$ .
- 8 Explain the computation of average profits, marginal profits, elasticity using the principles of differential calculus. What are the various curves of economics used in this computation?

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