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Register Number :

6765

Name of the Candidate :

M.B.A. DEGREE EXAMINATION DECEMBER 2013.

(HUMAN RESOURCE MANAGEMENT)

(FIRST YEAR)

160 — BUSINESS MATHEMATICS AND STATISTICS

(Common with M.B.A. (MM) and M.B.A. (FM))

Time : Three hours

Maximum : 75 marks

SECTION A

Answer any FIVE questions.

(5 × 3 = 15)

All questions carry equal marks.

1. (a) Define Symmetric and skew matrix.
- (b) What is meant by venn diagram?
- (c) Define Random variables.
- (d) Define Uniform distribution
- (e) Define Linear regression
- (f) What is meant by Interval estimate?
- (g) Write the Chi square formula in detail.
- (h) Define Time series.

SECTION B

Answer any THREE questions.

(3 × 10 = 30)

All questions carry equal marks.

2. Explain disjoint, union, intersection and complement of a set with examples.
3. Give detail note on binomial distribution.
4. A consumer buys a commodity at Rs.4.80, Rs.6, Rs.8, Rs.12 and Rs.24 per unit in each of five successive years. Calculate the average cost per unit if he buys
 - (a) 1000 units each year
 - (b) 1000 units, 800 units, 600 units, 400 units and 200 units in each of five successive years.

5. From the following data, calculate range and coefficient of range.
- | | | | | | | |
|-----------------|------|-------|-------|-------|-------|-------|
| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
| No. of students | 10 | 20 | 30 | 50 | 40 | 30 |
6. Explain the components of time series analysis.

SECTION C

Answer any ONE questions.

(1 × 15 = 15)

7. Explain in detail about the process of hypothesis formulation.
8. If $r = -0.8$ and $N=36$, Calculate
 (a) standard Error,
 (b) Probable Error.
 Also state whether the value of r is significant.
9. A company "X" claims that the length of life of its electric bulb is 2000 hours with standard deviation of 30 hours. A random sample of 25 showed an average life of 1940 hours with a standard deviation of 25 hours. At 5% level of significance can we conclude that the sample has come from a population with a mean of 2000 hours?

SECTION D

(Compulsory)

(1 × 15 = 15)

10. In a city 350 out of 600 persons were found to be vegetarian. On the basis of this data, can we say that majority of the population in the city is vegetarian?