

S.D.E.

MBA (Gen.) / MBA (H.R) Sem I (CBCS - 2018 Course) : WINTER - 2018

SUBJECT : STATISTICAL TECHNIQUES

Day : Wednesday
Date : 05/12/2018

W-2018-4538

Time : 10.00 AM TO 1.00 PM
Max. Marks : 70

N.B.

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION – I

Q.1 Draw frequency polygon and histogram from the following data: **(10)**

| | | | | | | | | |
|-----------------|----|----|----|----|----|----|----|----|
| Marks Less Than | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| No. of Students | 05 | 15 | 23 | 27 | 26 | 18 | 07 | 05 |

Q.2 Find mean deviation about mean from the following data: **(10)**

| | | | | | | | | | | |
|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Sales in ₹ Lacs | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-55 |
| No. of Companies | 12 | 27 | 35 | 47 | 60 | 43 | 26 | 17 | 9 | 4 |

Q.3 Find Spearman's rank correlation coefficient from the following information: **(10)**

| | | | | | | | | | | |
|---------------------|---|----|---|---|---|---|---|----|---|---|
| Rank R ₁ | 7 | 9 | 1 | 8 | 5 | 4 | 2 | 10 | 3 | 6 |
| Rank R ₂ | 6 | 10 | 5 | 7 | 4 | 3 | 8 | 2 | 1 | 9 |

Q.4 Two unbiased dice are thrown simultaneously. Find the probability that the sum of the scores on upper faces is **(10)**
a) multiple of 3. b) a perfect square.

Q.5 What is decision making? Explain decision making under risk and uncertainty **(10)**

Q.6 Write short notes on any **TWO**: **(10)**
a) Order of classes and class frequencies
b) Coefficient of determination
c) Importance of statistics in business management

SECTION – II

Q.7 Following information is available: **(15)**

| | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Advertisement Expenses in ₹ lacs | 10-14 | 14-18 | 18-22 | 22-26 | 26-30 | 30-34 | 34-38 | 38-42 |
| Sales in ₹ Lacs | 42 | 46 | 49 | 56 | 37 | 48 | 42 | 58 |

- Find a) both regression equations
b) advertisement expenses when sales are of ₹65 lacs

Q.8 Explain coefficient of association .Calculate Yule's coefficient of association from the following table: **(15)**

| | | |
|----------------|--------------------|-------------------|
| | Males with High IQ | Males with Low IQ |
| Tea Drinker | 440 | 280 |
| Coffee Drinker | 360 | 360 |

Q.9 Explain : a) Binomial distribution b) Normal Distribution **(15)**

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