

**I.M.C.A. SEM-IV (2014 Course) CBCS : SUMMER - 2019**  
**SUBJECT : STATISTICS**

Day : Thursday  
Date : 25/04/2019

Time : 10.00 AM TO 01.00 PM  
Max. Marks :100

**S-2019-2128**

**N.B.**

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II .
- 2) Answers to both the sections should be written in **SAME** answer book.
- 3) Use of non-programmable calculator is allowed.
- 4) Figures to the right indicate **FULL** marks.

**SECTION – I**

- Q.1** Explain the term Statistics. Discuss its scope in Business. (15)
- Q.2** What is Scatter Diagram? How does it help in studying the correlation between two variables in respect of both of its direction and degree? (15)
- Q.3** Represent the following data by a pie-diagram: (15)

Item	Expenditure in Rs.
Food	84
Clothing	27
Recreation	10
Education	15
Rent	23
Miscellaneous	21

- Q.4** Calculate mean, median and mode for the following data: (15)

Class	10–20	20–30	30–40	40–50	50–60	60–70	70–80
Frequency	10	20	35	50	45	30	15

- Q.5** Calculate mean deviation about median and its coefficient from the following data: (15)

Age (in years)	25–30	30–35	35–40	40–45	45–50	50–55
No. of Workers	30	47	51	38	28	19

- Q.6** Calculate Karl-Pearson's coefficient of correlation from the following data: (15)

X	80	90	95	69	60	80	68	62
Y	125	135	160	110	120	136	123	108

- Q.7** Write short notes on **ANY THREE** of the following: (15)
- a) Absolute and relative measures of dispersion
  - b) Frequency distribution
  - c) Limitations of Statistics
  - d) Good measures of Central Tendency
  - e) Properties of Correlation Coefficient

**P.T.O.**

**SECTION – II**

**Q.8** Define Primary Data. Explain any four primary data collection methods in brief. (20)

**Q.9 a)** Draw Histogram and frequency polygon for the following data: (10)

Marks	10–20	20–30	30–40	40–50	50–60	60–70
No. of Students	20	30	55	45	20	18

**b)** Draw Ogive curves for the following data. (10)

Marks	10–20	20–30	30–40	40–50	50–60	60–70
No. of Students	8	14	20	25	15	10

**Q.10** You are given the data relating to purchases and sales. Obtain the two regression equations and estimate the likely sales when the purchases equal to 125 (20)

Purchases	63	75	100	75	80	56	75	93	90	50
Sales	110	120	131	120	132	96	120	138	95	87

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