

Subject : Computer Oriented Statistical Methods

Day : Tuesday
Date : 14/06/2016



Time : 02.00 PM TO 05.00 PM
Max Marks : 80 Total Pages : 1

N.B.:

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

SECTION - I

Q.1 Discuss the importance of Statistics in Computer Science. [10]

Q.2 Obtain lower and upper quartiles of the data given below: [10]

x	11	18	14	26	7	22
f	16	24	26	14	3	17

Q.3 Compute the mean and mode using the following data: [10]

fine paid (in Rs.)	20 – 40	40 – 60	60 – 80	80 – 100	100 – 120
frequency	7	10	17	9	2

Q.4 The mean and standard deviation of 20 observations are 10 and 2 respectively. Later it was noticed that observation 8 was incorrect. Find the arithmetic mean and standard deviation if the incorrect observation is omitted. [10]

Q.5 A group of 50 items has mean and standard deviation 61 and 8 respectively. Another group of 100 items has mean and standard deviation 70 and 9 respectively. Obtain the combined mean and combined standard deviation. [10]

Q.6 Compute Karl Pearson’s Correlation Coefficient for the following data and interpret: [10]

Height (inches)	72	60	63	66	70	65	58	68
Weight (kg)	65	54	55	61	60	64	50	63

Q.7 Write short notes on **ANY TWO** of the following: [10]

- a) Merits and demerits of median
- b) Ogive curves
- c) Scatter diagrams

SECTION – II

Q.8 Calculate five yearly moving averages for the following data. Hence plot the original data and five yearly moving averages. [15]

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sales	242	238	252	257	250	273	270	268	288	284

Q.9 Prepare frequency distribution for the following data. Hence plot histogram and frequency polygon: [15]

36	42	48	49	47	35	37	33	36
41	43	48	45	40	42	46	40	42
41	44	40	42	39	37	41	31	34
38	40	44	37	43	41	38	37	39

Q.10 Two lines of regression are given by $3x - y = 5$ and $4x - 3y = 0$. Find \bar{X} , \bar{Y} and correlation coefficient between x and y . [15]

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