

**CDOE**  
**BACHELOR OF BUSINESS ADMINISTRATION (2006 COURSE)**  
**B.B.A. Sem-II : WINTER :- 2021**  
**SUBJECT: BUSINESS STATISTICS-I**

Day : Wednesday  
Date 9/2/2022

W-3413-2021

Time : 02:00 PM-05:00 PM  
Max. Marks: 80

**N.B.**

- 1) Attempt any **FIVE** questions from Section –I, each question carries 10 marks.
- 2) Attempt any **TWO** questions from Section –II, each question carries 15 marks.
- 3) Use of Scientific calculator and graph papers is allowed.
- 3) Answers to both the section should be written on **SEPARATE** answer book.

- Q.1.** A sample of 30 persons showed their ages (in years ) as –  
Construct the frequency distribution table with class taken as  
15-25 , 25- 35 , .....65-75. Also calculate mean.

48	53	25	68	23	25
49	35	37	29	22	16
42	65	37	42	63	65
48	39	58	67	42	49
57	69	72	65	20	18

- Q.2** Construct the subdivided Bar chart for the five types of expenditures in Rupees for a family of four members for years 2012, 2013,2014 ,2015, 2016 as given in the following table –

Year	Food	Education	Medication	Travel	Other
2012	3000	3000	1500	3000	3000
2013	3500	3500	2500	4000	4000
2014	4000	3500	3000	5000	5000
2015	5500	5000	4000	4000	4000

- Q.3** Calculate the mean deviation from median from the data giving marks obtained by 20 students in a class test out of 20-

18	14	15	13	12
17	16	15	19	09
18	13	14	16	08
16	15	16	17	18

- Q.4** Estimate the Standard Deviation of the data in the following distribution-

x	20	18	17	16	15	14	14	12	13
f	10	8	12	5	15	3	17	4	6

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- Q.5** From the following data ,construct index number of prices for 2015 with 2010 as base ,using (i) Laspeyre's method (ii) Paasche's method (iii)Fisher's method.

Commodity	2010		2015	
	Price per Unit	Expenditure in rupees	Price per Unit	Expenditure in rupees
A	20	150	30	175
B	30	120	25	140
C	10	80	20	85
D	40	20	50	250

- Q.6** Construct the Histogram and Frequency polygon for the following data given

Class Intervals	115-120	120-125	130-135	135-140	140-145	140-145	145-150
Frequency	8	4	5	3	10	15	5

- Q.7** Write any two short notes from the following- (10)
- Index Numbers
  - Central Tendency
  - Statistical population
  - Measures of dispersion

## SECTION -II

- Q.8** Middle aged persons were encouraged to have their blood pressure checked free of charge on a given day by the Nursing Department of a college. The systolic blood pressure of first 20 persons is recorded as follows. (15)

130	139	135	148	136	145	125	126	140	135
120	135	140	120	118	152	139	156	160	150

- Compute the mode and median blood pressure.
- Estimate  $P_{30}$  and  $D_6$

- Q.9** The fluctuation in the market rates of the shares of two mills during the year 2015 are recorded as follows –

A	284	285	284	288	286	285	280	281	285	284	282	280
B	50	48	46	49	48	45	41	43	41	44	49	42

Which of two shows greater variability?

- Q.10** The following table shows the number of public sector industries failures in India during the period 2000 to 2009. Using a 4 year moving average method, calculate the square error (MSE) for this data.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No .of failures	26	24	22	28	30	32	31	29	26	25