

S.D.E.

B.B.A. (2006 COURSE) SEM- II : WINTER - 2017

SUBJECT : BUSINESS STATISTICS - I

Day : **Thursday**
Date : **14/12/2017**

Time : **02.00 PM TO 05.00 PM**
Max. Marks : 80

W-2017-4100

N.B.:

- 1) Attempt **ANY FIVE** questions from Section – I and attempt **ANY TWO** questions from Section – II.
- 2) Answer to both the **SECTION** should be written in **SEPARATE** answer books.
- 3) Use of non programmable **CALCULATOR** is allowed.
- 4) Graph paper will be provided if **NECESSARY**.
- 5) Figures the right indicates **FULL** marks.

SECTION - I

Q.1 Define 'variation in quality'. Discuss the different types of variation giving [10] examples.

Q.2 For the following data, find the mean and median [10]

Class	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
Frequency	10	20	24	15	12	9

Q.3 The following table gives the age(in years) of employees of a firm [10]

Age (in years)	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45
No. of years	5	?	18	9	6

If the modal age is 32 years, find the missing frequency.

Q.4 Explain the primary and secondary sources of data and their importance. [10]

Q.5 Find the coefficient of Quartile deviation for the following data: [10]

Marks	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80	80 – 90
No. of students	25	45	60	120	90	80	70	60

Q.6 Find the mean, median and mode for the following data [10]

X	3	8	13	18	23
f	17	24	39	22	18

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

- a) Absolute and relative measures of dispersion
- b) Histograms
- c) Kurtosis
- d) Types of index numbers

P.T.O.

SECTION – II

Q.8. A survey of shoppers at a market gave the following information about the amount spent on shopping (in rupees). **[15]**

149	63	72	88	129	115	165	200
439	290	208	420	245	329	470	239
320	229	260	224	310	486	377	138
393	258	369	308	333	286	105	198
187	301	410	492	445	400	205	428
444	286	195	386	225	460	443	489
492	387	290	315	300	277	285	156
191	231	128	139	240	176	184	300
321	252	212	275	324	339	215	289
295	196	280	125	151	216	222	111

- a) Construct a frequency distribution taking classes as 50 – 100, 100 – 150, -----.
- b) Draw ‘less than’ and ‘more than’ Ogive curves.
- c) Compute Arithmetic Mean for the tabulated data.
- d) Locate median graphically.

Q.9 Given the following information, compute the index numbers of prices by applying: **[15]**

- a) Laspeyre’s Method
- b) Paasche’s Method
- c) Fisher’s Method

Commodity	Year 2000		Year 2010	
	Price	Quantity	Price	Quantity
A	20	8	40	6
B	50	10	60	5
C	40	15	50	15
D	20	20	20	25

Q.10 Two batsmen scored the following runs in 10 matches. **[15]**

Akash	70	39	42	10	90	82	77	14	12	80
Bipin	62	75	82	49	25	49	52	48	50	20

Find for both batsmen :

- a) Mean of runs scored
- b) Standard deviation of runs scored
- c) Coefficient of variation
- d) Who is more consistent? Why?