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SEAT No. \_\_\_\_\_

No. of Printed Pages : 2

**SARDAR PATEL UNIVERSITY****BBA (ITM) (3 years) SEM-II (CBCS) EXAMINATION**

Date: 2-04-2019

**BUSINESS STATISTICS**

Time: 2:00 pm to 4:00 pm

Tuesday

**Subject code: UM02EBBI03****Total Marks: 60**

- Note:** (1) Only simple calculator is allowed.  
 (2) Figure on right indicates marks.  
 (3) Graph papers will be supply on request.

- Q-1(A) Explain primary data and secondary data with illustrations. (7)  
 (B) Using following raw data form discrete frequency distribution. (8)

15	18	16	20	25	24	25	20	16	15	18
18	16	24	15	22	28	30	27	16	24	25
20	18	28	27	25	24	24	18	18	25	20
16	15	20	27	28	29	16				

OR

- Q-1 (A) Explain the method of collecting primary data (7)  
 (B) The marks obtain by 40 students of class IX in examination are given below. Represent the data in the form of a frequency distribution using the same class size , one such class being 15-20 (20 is not included in this class). (8)

18	8	12	6	8	16	12	5	23	2	16
23	2	10	20	12	9	7	6	5	3	5
13	21	13	15	20	24	1	7	21	16	13
18	23	7	3	18	17	16				

- Q-2 (A) Find Mean, Median and Mode of the following data: (7)

No of accident	0	1	2	3	4	5	6
No. of days	15	25	20	15	16	6	3

- (B) Find the missing frequency from the following distribution of sales of shops given that Median sale of Shops is Rs.24 hundred. (8)

Sales(in '00 Rs.)	0-10	10-20	20-30	30-40	40-50
No. of shops	5	25	-	18	7

OR

- Q 2 (A) Find Quartile deviation and Coefficient of Quartile deviation of the following data: (7)

Value of variable	11	13	15	17	19	21	23	25
Frequency	5	8	13	20	22	18	10	4

- (B) From the following data find Standard deviation and Coefficient of variation: (8)

class	40-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120
f	13	33	46	35	19	18	18	18

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(P.T.O)

Q 3 (A) What is correlation? Explain types of correlation. (7)

(B) Find Karl's Pearson correlation coefficient of the following data: (8)

X	150	160	162	165	167	164	163	160	165	154
Y	157	159	160	167	166	164	162	165	165	155

OR

Q 3 (A) What is regression analysis? Explain properties of regression coefficients (7)

(B) Find the equations of regression lines. Also find the correlation coefficient. (8)

X	28	41	40	38	35	33	46	32	36	33
y	30	34	31	34	30	26	28	31	26	31

Q 4 (A) Define Binomial distribution and explain its properties and uses (7)

(B) A factory produces 0.5% defective articles. If sample of 100 articles is taken from production, find the probability of getting (1) Exactly 3 defective (2) 2 or more defective articles. ( $e^{-0.5}=0.6065$ ) (8)

OR

Q 4 (A) Define Poisson distribution and explain its properties and uses (7)

(B) 8% of the observations of a Normal distribution are more than 64 and 33% are less than 45.

Find the parameters of the distribution. (8)

— X —  
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