Sr.No.1286

Exam Code: 110103
Subject Code : 2552

Bachelor of Vocation (Banking & Financial Services) - 3rd Sem.

(Batch 2020-23)

(2221)

Paper : BVC-301 Business Statistics

Time allowed: 3 hrs. **Max. Marks: 50**

Note: Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

Section- A

Q1. Calculate the Mode, Median and Arithmetic average from the following data.

Class	*F*	*Class*	*f*
0-2	8	25-30	45
2-4	12	30-40	60
4-10	20	40-50	20
10-15	10	50-60	13
15-20	16	60-80	15
20-25	25	80-100	4

Q2. Calculate standard deviation of the following series:

Daily Wages of Workers (in Rs.)	No. of Workers	Daily Wages of Workers (in Rs.)	No. of Workers	Daily Wages of Workers (in Rs.)	No. of Workers
100-105	200	120-125	350	140-145	280
105-110	210	125-130	520	145-150	210
110-115	230	130-135	410	150-155	160
115-120	320	135-140	320	155-160	90

Section-B

Q3.(a) Differentiate correlation and regression. Write properties of Correlation coefficient.

Compute the correlation coefficient between the corresponding values of X and Y in the following table:

X	2	4	5	6	8	11
Y	18	12	10	8	7	5

(5,5)

Q4. From the data given below find the most likely marks in Statistics when marks in Economics are 30.

Marks in Economics	25	28	35	32	31	36	29	38	34	32
Marks in Statistics	43	46	49	41	36	32	31	30	33	39

Contd....P/2

Section – C

Q5. For the following data prove that Fisher's Ideal index satisfies both the Time Reversal Test and the Factor Reversal Test and calculate its value.

Commodities	*Base Year*		*Current year*	
	Price	*Quantity*	*Price*	*Quantity*
A	6	50	10	56
B	2	100	2	120
C	4	60	6	60
D	10	30	12	24

Q6. Find the trend of annual sales of an organization from data given below using Moving average Method.

Year	*Annual Sales (Rs. in '000)*	*Year*	*Annual Sales (Rs. in '000)*	*Year*	*Annual Sales (Rs. in '000)*
1990	40	1997	44	2004	58
1991	42	1998	44	2005	56
1992	40	1999	50	2006	51
1993	44	2000	42	2007	57
1994	49	2001	48	2008	54
1995	46	2002	46	2009	63
1996	42	2003	52		

(Use the most appropriate period of moving average)

Section – D

Q7. A committee of 4 persons is to be appointed from 3 officers of the production department, 4 officers of the purchase department, 2 officers of the sales department and 1 chartered accountant. Find the probability of forming the committee in the following manner:

(i) There must be one from each category
(ii) It should have at least one from the purchase department
(iii) The chartered accountant must be in the committee.

Q8(a) Probability that a man will be alive 25 years hence is 0.3 and the probability that his wife will be alive 25 years hence is 0.4. Find the probability that 25 years hence

(i) both will be alive
(ii) only the man will be alive
(iii) only the woman will be alive
(iv) none will be alive
(v) at least one of them will be alive.

(b) Find the probability of throwing 6 at least once in six throws with a single dice. (5,5)

****