P. P. SAVANI UNIVERSITY

Third semester of B.B.A Examination
November-2021
SMBB2161 - (Quantitative Methods- II)

27.11.2021, Saturday   Time: 09:00 a.m. to 11:30 a.m.   Maximum Marks: 60

Instructions:
1. The question paper comprises of two sections.
2. Section I and II must be attempted in same answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION – I

Q - 1   Explain the term regression and coefficient of correlation   [05]

Q - 2 (a)   Find mean, medium and mode of following data.   [05]

5	15	20	20	15	19	23	55	45	100

Q - 2 (b)   Find mean and medium of following data.   [05]

Class	Frequency
0-2	1
3-5	4
6-8	7

OR

Q - 2 (a)   Find Regression line equation   [05]

X	3	4	6	4	2	5
Y	6	8	9	5	4	9

Q - 2 (b)   Find coefficient of correlation using above regression line.   [05]

Q - 3   ABC Ltd. charge customers a flat rate for delivery based on a mean weight for   [10]
            packages of 1.75 kg with a standard deviation of 0.5 kg. Postage costs have risen
            and it seems likely that the mean weight is greater than 1.75 kg. The company
            checked a random sample of 100 pack- ages and found a mean weight of 1.86 kg.
            Does this support the view that the mean weight is more than 1.75 kg?

OR

Q - 3   Mr. Gupta says that the average income in Port is $15,000. A sample of 45 people   [10]
         found their mean income to be $14,300 with a standard deviation of $2,000. Use
         a 5% significance level to check the claim. What is the effect of using a 1%
         significance level?

Q - 4   Explain Type 1 and Type 2 Error   [05]

SECTION – II

Q – 1   Explain Normal Distribution and draw diagram   [05]

Q - 2 (a) Explain various measures of central tendency.   [05]

Q - 2 (b) Explain the Hypothesis Testing in detail with example.   [05]

                                      OR

Q - 2   Check test of independence of following data.   [10]

		No of days	
A	5	10	15
B	9	15	15

Q - 3   Check test of independence of following data.   [10]

		No of days	
With parents	7	40	20
Without parents	8	10	20
Total	15	50	40

Q - 4   Explain coefficient of determination.   [05]

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