

P. P. SAVANI UNIVERSITY

Third semester of B.B.A. Examination

November-2022

SMBB2161 - (Quantitative Methods- II)

25.11.2022, Friday

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 separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

			CO	BLT
Q - 1	Define any five.	[05]	1	1
(i)	Sample			
(ii)	Median			
(iii)	Type II Error			
(iv)	Mode			
(v)	Secondary data			
(vi)	Population			
(vii)	Range			
Q - 2 (a)	Explain the Hypothesis Testing in detail with examples.	[05]	1	2
Q - 2 (b)	Differentiate between correlation and regression analysis.	[05]	1	4

OR

Q - 2 (a)	Explain Normal Distribution and draw a diagram.	[05]	1	2
Q - 2 (b)	Explain Type 1 and Type 2 Error	[05]	1	2
Q - 3	Construct Mean chart for following data. ($A_2 = 0.483$)	[10]	3	6

Sample	1	2	3	4	5	6
Mean	300	342	351	319	326	333
Range	25	37	20	28	30	22

OR

Q - 3	Check test of independence of following data.	[10]	2	4																
	<table border="1"><thead><tr><th></th><th colspan="3">No of days</th></tr></thead><tbody><tr><td>With parents</td><td>7</td><td>40</td><td>20</td></tr><tr><td>Without parents</td><td>8</td><td>10</td><td>20</td></tr><tr><td>Total</td><td>15</td><td>50</td><td>40</td></tr></tbody></table>		No of days			With parents	7	40	20	Without parents	8	10	20	Total	15	50	40			
	No of days																			
With parents	7	40	20																	
Without parents	8	10	20																	
Total	15	50	40																	
Q - 4	Attempt anyone.																			
(i)	Explain the coefficient of determination.	[05]	1	2																
(ii)	Explain Moving average method.	[05]	1	2																

SECTION - II

Q - 1	Define any five.	[05]	1	2
(i)	Skewness			

- (ii) Mean
- (iii) Type I Error
- (iv) Hypothesis
- (v) Kurtosis
- (vi) Primary data
- (vii) Chi-square Test
- Q - 2 (a) Explain C - chart with suitable example. [05] 1 2
- Q - 2 (b) Explain p-np chart with suitable example. [05] 1 2
- OR**
- Q - 2 Find value for Mean and Median of following data. [10] 2 5
- | | | | | | | |
|------|--------|---------|---------|---------|---------|---------|
| C.I. | 0 - 15 | 15 - 30 | 30 - 45 | 45 - 60 | 60 - 75 | 75 - 90 |
| Fre. | 3 | 5 | 10 | 12 | 6 | 4 |
- Q - 3 (a) Explain different types of Quality Control Charts. [05] 1 2
- Q - 3 (b) Explain ANOVA method in detail. [05] 1 2
- OR**
- Q - 3 Find value for mean median and mode of following data. [10] 2 5
- 5 7 12 8 15 12 17 18 22 20 26 28 32 30
- Q - 4 Attempt anyone.
- (i) A stock trader wants to calculate a stock's simple moving average by taking its closing price over the last five days. The closing prices for the last 5 days are as follows: ₹23, ₹23.40, ₹23.20, ₹24, and ₹25.50. Find value the simple moving average. [05] 2 5
- (ii) Explain measurement of central tendency [05] 1 2

CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create