BCO-312

Sl.No. : **Total No. of Pages : 3**

Third Year B.Com. Degree Examination, May/June - 2025

(SLM Scheme)

BUSINESS STATISTICS AND QUANTITATIVE TECHNIQUES

Time : 3 Hours **Max. Marks : 80**

PART - A

Answer any four questions. Each question carries 5 marks. **[4×5=20]**

Q1) Find simple interest and compound interest on ₹5,00,000 for 4 years at 8% p.a.

Q2) What are the functions of set theory.

Q3) List out the characteristics of statistics.

Q4) If r = 0.8 and N = 16 find probable Error.

Q5) What do you mean by Interpolation and extrapolation?

Q6) What are the problems in the construction of Index Numbers.

PART - B

Answer any three questions. Each carries 10 marks. **[3×10=30]**

Q7) Two pair of dice are rolled. Find the probability that

i) Both the dice shows number 6.

ii) The sum of numbers obtained is 7 or 10.

iii) The sum of the numbers obtained is lessthan 11.

iv) The sum is divisible by 3.

Q8) What do you mean by correlation? Explain types of correlation.

Q9) Calculate Mean, Mode and standard deviation from the following data.

C.I	0-10	10-20	20-30	30-40	40-50	50-60
f	3	7	20	35	10	5

Q10)Define statistics. Explain the limitations of statistics.

Q11)Find trend by 3 yearly moving average method from the following data.

Years	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Sales (‘000)	5	7	9	12	11	10	8	12	13	17	19	14	13	12	15

PART - C

Answer any two questions. Each carries 15 marks. **[2×15=30]**

Q12) What is Time Series? Explain the components of Time Series.

Q13) Solve the following L.P.P graphically

Maximise $z = 2000x + 1000y$

s.t $x + y \leq 400$

$8x + 5y \leq 2600$

and $x \geq 0, y \geq 0$

Q14) The following are the age statistics of 10 couples. Calculate Karl Pearson's Co-efficient of correlation between Age (years) of the brides and bride grooms.

Age	Bride	18	20	19	25	21	22	24	26	28	30
	Bridegroom	22	24	23	30	25	26	28	31	34	25

Q15) Find whether Fisher's index number satistics time reversal test using the following data.

Commodity	Base year		Current year	
	Price	Qnty	Price	Qnty
A	2	8	3	10
B	5	10	6	12
C	4	15	5	20

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