

2020

( 6th Semester )

COMMERCE

Paper : BC-603

( Business Statistics )

Full Marks : 70

Pass Marks : 45%

Time : 3 hours

( PART : B—DESCRIPTIVE )

( Marks : 45 )

The figures in the margin indicate full marks for the questions

- 1. (a) Define statistics. Explain how statistics is useful in the decision-making process of business and management. 2+7=9

Or

- (b) Distinguish between primary and secondary data. Which one would you prefer? Briefly explain how they are collected. 4+1+4=9

- 2. (a) Find mean and median from the following data : 4+5=9

Class

Interval : 0-10 10-20 20-30 30-40 40-50 50-60 60-70

Frequency : 8 12 10 8 3 2 7

Or

- (b) Calculate Spearman's rank correlation coefficient from the following data : 9

X : 52 63 45 36 72 65 47 25

Y : 62 53 51 25 79 43 60 33

- 3. (a) Compute the consumer price index number of 1970 on the basis from the following data using (i) aggregate expenditure method and (ii) family budget method, and give comment : 9

Commodity	Price (₹)		Quantity in 1968
	in 1968	in 1970	
Rice	12	15	20
Wheat	15	18	30
Milk	10	12	10
Oil	30	35	25

Or

- (b) What do you mean by index number? Explain the uses and limitations of index number. 3+3+3=9

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4. (a) Below are given the figures of production (in thousand quintals) of a sugar factory :

Year : 2013 2014 2015 2016

Production

(in '000 quintals) : 80 90 92 83

Year : 2017 2018 2019

Production

(in '000 quintals) : 94 99 92

Fit a straight line trend by the method of least square. 9

Or

- (b) What do you mean by moving average method? Discuss the advantages and disadvantages of moving averages in time series analysis. 3+3+3=9

5. (a) What is sampling? Discuss in brief about non-random sampling methods used in sampling. 2+7=9

Or

- (b) A problem of statistics is given to three students for solution. Their probabilities of solving it are  $\frac{1}{2}$ ,  $\frac{1}{3}$  and  $\frac{1}{4}$  respectively. What is the probability that the problem will be solved? 9

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