#### **Programme: Three Year B.Com**

(General and Computer Applications)

# **Domain Subject: Commerce**

Semester-wise Syllabus under CBCS

(w.e.f. 2020-21 Admitted Batch)

II Year B.Com (Gen & CA, Tax & BA Accountancy) – Semester – III

## **Course 3B: Business Statistics**

#### **Model Question Paper 2021-22**

#### **Section A**

#### Answer any Five of the following 5 X 5=25 M

1) The marks obtained by the students in a class as follows. You are required to construct a frequency table. The class interval is taken as 10.

Marks: 66 34 50 72 35 88 68 72 30 44 67 25 88 16 33 79 92 27 70 84 12 39 96 63 44 25 31 88 82 56 62 47 20 34 69 49 28 75 40 81

- 2) The average mean wage of 100 labourers working in a factory running two shifts is ₹ 84. The mean wage of 70 labourers working in morning shift is ₹ .90. Find the mean wage of 30 workers working in the evening shift.
- 3) If median = 24.65 and mode = 28.04. Find mean

4) Find range and co-efficient of range from the following.

Valu	ues	42	46	50	54	58	60	62	64
freq	luency	18	74	126	93	61	38	14	8

- 5) If mean = 30.45, mode = 32.5 and standard deviation = 8.96. Find Karl Pearson's coefficient of skewness.
- 6) Define probable error. If r = 0.9 and n=10 then find P.E.r.

7) Construct index numbers under simple Aggregative method

commodity	A	В	C	D	E
Price ₹ 2021	50	40	80	110	20
Price ₹ 2022	70	60	90	120	20

8) Construct the cost of living index number.

Group	Food	Fuel and Lighting	Clothing	Rent	Miscellaneous
Index Number	352	220	230	160	190
Weight	48	10	8	12	15

## **Section - B**

## Answer any ONE Question from each unit

 $(5 \times 10 = 50 \text{ Marks})$ 

## **UNIT - 1**

9) Draw a histogram and find mode

Daily wages	0 - 10	10 - 30	30 - 40	40 - 50	50 - 60	60 - 80	80 - 100
(in ₹ .)							
No. Of	5	12	13	20	14	10	14
workers							

(OR)

10) In a sample study about the tea habits in two villages the following data were observed:

Village – A	Village – B
70% persons were males	55% persons were males
80% were tea drinkers,	35% were tea drinkers, and
62% were male tea drinkers	25% were male tea drinkers

Tabulate the above data.

## UNIT - 2

11) Find Arithmetic Mean from the following data.

CI	10 -20	20-30	30-40	40 -50	50-60	60-70	70- 80	80- 90
Frequency	5	12	20	30	18	13	10	3

(OR)

12) Find  $Q_3, O_4, D_6$  and  $P_{46}$  from the following data.

Classes	30 - 32	32 - 34	34 - 36	36 – 38	38 - 40	40 - 42	42 - 44	44 - 46
frequency	8	24	31	50	61	38	21	12

## **UNIT - 3**

**13**) Two cricketers scored the following runs in the several innings. Find who better run getter and who is more consistent player.

A	42	17	83	59	72	76	64	45	40	32
В	28	70	31	5	59	108	82	14	3	95

(OR)

14) Calculate Bowley's co-efficient of skewness.

Mid	15	25	35	45	55	65	75	75
values								
frequency	34	40	48	100	125	80	50	22

**UNIT - 4** 

**15**) Calculate the correlation from the following data.

X	250	200	150	120	100	80
Y	200	150	90	48	30	12

(OR)

**16)** Calculate Rank correlation .

Marks in Maths	35	54	80	95	73	73	44	91	77	81
Marks in English	39	55	78	49	67	55	62	71	56	69

## **UNIT-5**

**17**) Construct index numbers under (1) Simple average of relatives method and (2) weighted average of relatives method

commodities	P	Q	R	S	T
2020 price in Rs.	50	40	80	110	20
2021 price in Rs.	70	60	90	120	20
weights	4	1	2	1	2

(OR)

18) Construct Fishers ideal index number from the following data.

Commodities	2020		2021	
	Price in Rs.	Value in Rs.	Price in Rs.	Value in Rs.
Rice	20	200	60	300
Wheat	15	225	40	400
Maize	5	100	15	150