SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.
B.Com.(CA) END SEMESTER EXAMINATIONS NOVEMBER-2022
SEMESTER - III
21UCCAT3003 - Business Statistics

Total Duration : 2 Hrs 30 Mins. **Total Marks : 60**

Section A

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. Explain the Characteristics of statistics.
2. Compute the Geometric Mean

Yield of Wheat(mounds)	7.5-10.5	10.5-13.5	13.5-16.5	16.5-19.5	19.5-22.5	22.5-25.5	25.5-28.5
No. of farms	5	9	19	23	7	4	1

3. Find out the missing values of the variate for the following distribution, whose mean is 31.87

X	12	20	27	33	?	54
F	8	16	48	90	30	8

4. A random sample of 5 college students is selected and their grades is mathematics and statistics are found to be

Mathematics	85	60	73	40	90
Statistics	93	75	65	50	80

   Use Rank Correlation.
5. Difference between correlation and regression.
6. Assuming a four – Yearly cycle calculate the trend by the method of moving average from the following data relating to the production of tea in India

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Production	464	515	518	467	502	540	557	571	586	612

7. Compute trend values by the method of least square from the data given below and estimate the sales for 2018

Year	2011	2012	2013	2014	2015
Sales of Co.(Rs. Laks)	70	74	80	86	90

Contd...

8. Calculate Quantity Index 1. Laspeyre's Method 2. Fisher's Method

Year Commodity	**Price (P_0)**	**2004 (P_0Q_0)**	**Price (P_1)**	**2006 Total Value (P_1Q_1)**
A	10	100	12	144
B	12	144	14	196
C	14	196	16	256
D	16	256	18	324
E	18	324	20	400

Section B

Answer any **THREE** questions $(3 \times 10 = 30$ Marks)

9. Discuss the different methods of collecting primary data.
10. Compute Median and Mode from the following data

Age	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Frequency	20	26	44	60	101	109	84

11. Solve Karl Pearson's Coefficient of correlation from the following data

Wages	100	101	102	102	100	99	97	98	96	95
Cost of Living	98	99	99	97	95	92	95	94	90	91

12. Fit a straight line trend by the method of least square to the following data, relating to the net profits of a public concern

Year	2009	2010	2011	2012	2013	2014	2015
Profit	300	700	600	800	900	700	1000

13. From the fixed base Index number given below, ascertain chain base Index numbers

2010	2011	2012	2013	2014	2015
94	98	102	95	98	100

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