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.(A&F). - END SEMESTER EXAMINATIONS NOVEMBER-2022
SEMESTER - I
20UAFAT1001 - Business Statistics

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

Section A

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

1. What is hypothesis testing in statistics with example?

2. Compute mean deviation from the following data.

X	2	4	6	8	10
F	1	4	6	4	1

3. Analyze the following data to calculate the coefficient of rank correlation between mathematics and statistics.

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

4. From the following distribution, calculate harmonic mean.

Marks	50	40	25	20	10
Frequency	10	20	50	30	20

5. Illustrate Stratified and Systematic sampling.

6. Distinguish between Primary data and Secondary data.

7. Prepare a trend line by the method of semi-averages.

Year	2010	2011	2012	2013	2014	2015
sales	60	75	81	110	106	120

8. A man wants to marry a girl having qualities: while complexion - the probability of getting such girl is 1 in 20. Handsome dowry- probability of getting is 1 in 50. Western style- the probability is 1-100.

   Ascertain the probability of his getting marries to such girl, who has all the three qualities.

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Section B

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

9. You note that your officer is happy on 60% of your calls, so you assign a probability of his being happy on your visit as 0.6 or 6/10. You have noticed also that if he is happy, he accedes to your request with aprobability of 0.4 or 4/10 whereas if he is not happy, he accedes to the request with a probability of 0.1 or 1/10. You call one day and he accedes to your request.What is the probability of his being happy?

10. Compute Median and Mode form the following data.

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

11. Solve the 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. Two random sample were drawn from two normal populations and their values are:

    A : 66 , 67, 75 , 76, 82, 84, 88, 90, 92
    B : 64, 66, 74, 78, 82, 85 , 87, 92 , 93, 95, 97

    Test whether the two populations have same variance at 5% level of significance for V1=10, V2=8.

13. Assuming 5-yearly moving averages , calculate trend values from the data given below and plot the results on a graph paper.

Year	1971	1972	1973	1974	1975	1976	1977	1978	1979
Production (in '000 tons)	105	107	109	112	114	116	118	121	123

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