Vivekanand Education Society's Institute of Technology

NAME: NARENDER KESWANI

ROLL NO: 24

DIVISION: B

DEPARTMENT: MASTER OF COMPUTER APPLICATION (M.C.A)

SUBJECT: MCA11 - Mathematical Foundation for Computer Science 1 (MFCS)

EXAM: CONTINOUS ASSESTMENT (CA)

PROFESSOR: RUCHI RAUTELA (RR)

DATE: 04/03/2022

Vivekanand Education Society's Institute of Technology, Chembur, Mumbai Department Of MCA Year:2021-22 (Odd Sem) Assignment 1

Class : FIRST YEAR MCA	Division: A & B
Semester: I	Subject: Mathematical Foundation for Computer Science 1
Assignment: 1	Topic: Statistics & Probability
Each question carries 5 marks.	

Q1	Calculate Karl Pearson's coefficient of skewness for the following data: *Class interval* / *Frequency* / *Class interval* / *Frequency* 130 – 134 / 3 / 150 – 154 / 19 135 – 139 / 12 / 155 – 159 / 12 140 – 144 / 21 / 160 – 164 / 5 145 – 149 / 28	CO1
Q2	A sample of 12 fathers and their eldest sons gave the following data about their height in inches : Father: 65 63 67 64 68 62 70 66 68 67 69 71 Son : 68 66 68 65 69 66 68 65 71 67 68 70 Calculate coefficient of rank correlation.	CO2
Q3	The probability that an electric component will fail in less than 1200 hrs of continuous use is 0.24. Using normal distribution, find probability that among 200 such components fewer than 45 will fail in less than 1200 hrs of continuous use.	CO4
Q4	The level of calcium in the blood of healthy, young adults varies with a mean of 9.5 mg per deciliter and a SD of 0.4. A clinic measures the blood calcium level of 180 healthy women and finds x = 9.57mg. Is this an indication that the mean calcium level in this population differs from 9.5mg?($Z\alpha$ = 1.96)	CO5

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