MANAV RACHNA UNIVERSITY, FARIDABAD
Department of Mathematics

Course: B.Tech. CST **Semester: IV**
Session: 2020-21

Subject: Probability & Statistics III (MAH-202 B T)

Tutorial: 05

***Course Outcome CO3*:**

***Blooms Taxonomy Level**: BT2,BT3*

Q1. The average test marks in a particular test is 79. The standard deviation is 5. If the marks are normally distributed, how many students in a class of 200 did not receive marks between 75 and 82? Ans -97

Q2.Obtain the equation of the normal curve that may be fitted to the following data :

Variables (x)	0	1	2	3	4	5
Frequency (f)	10	14	19	8	5	3

Q3.In a referendum 60% of voters voted in favour. A random sample of 200 voters was selected . What is the probability that in the sample

(i) More than 130 voted in favour ? Ans 0.06
(ii) Between 105and 130 inclusive voted in favour? Ans 0.89
(iii) 120 voted in favour? Ans 0.05

Q4 In an examination taken by 500 candidates ,the average and the standard deviation of marks obtained (normally distributed) are 40% and 10% . Find approximately

(i) How many will pass, if 50% is fixed as a minimum? Ans -79
(ii) What should be the minimum if 350 candidates are to pass? Ans 35%
(iii) How many have scored marks above 60%? Ans 11

Q5. In a distribution ,exactly normal,9.85% of the items are under 40 and 89.97% are under 60.What are the mean and standard deviation of the distribution?

Ans mean=50.04 std dev=7.78