DAYANANDA SAGAR COLLEGE OF ENGINEERING

Date: 13/4/2018 Marks: 50

	Marks	LL	CO
1. Explain the following (i)Null hypothesis (ii)Alternative hypothesis (iii)Type I and type II error (iv)Level of significance (v)Standard error	10	3	2
2. 2% of the fuses manufactured by a firm are found to be defective. Find the probability that a box containing 200 fuses contains (i) No defective fuse (ii) 3 or more defective fuses (iii) atleast one defective fuse	10	2	2
3. The Random Variable X has the following probability mass function, find variance and (i) k (ii) P(X<3) (iii) P(3	10	6	5
4. The sale per day in a shop is exponentially distributed with an average sale amounting to Rs.100 and net profit is 8%. Find the probability that the net profit exceeds Rs. 30 on a day.	10	5	2
5. Solve dy/dx=(y^2-x^2)/(y^2+x^2) ,y(0)=1 , find y at x=0.2 using Runge-kutta method of 4th order taking step-length h=0.2. Accurate up to 4 decimal places.	10	6	4