DAYANANDA SAGAR COLLEGE OF ENGINEERING

Date: 13/4/2018 Marks: 50

	Marks	LL	CO
1. 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
2. A sample of 100 dry battery cells tested to find the length of life produced by a company and following results are recorded: mean life is 12 hrs, SD is 3 hrs. Assuming data to be normally distributed, find the expected life of a dry cell. (i) have more than 15 hrs (ii) between 10 and 14 hrs.[P(0.667)=0.2486,P(1)=0.3413].	10	6	4
3. Explain the segment registers used in 8086 and explain clearly how physical address is calculated in 8086.	10	4	6
4. Solve the following by modified Euler's method thatdy/dx=log_e■[(x+y)]■, y(0)=2 and find y(0.4) by taking h=0.2.	10	1	1
5. For any three sets A, B and C, Prove that i)(A ∆ B)=(B ∩A')U(A∩B')=(B-A)U(A-B) ii)(A∩B)U(A∩B∩C'∩D)U(A'∩B)=B.	10	3	1

CO	Statement
1	Use the core python scripting concepts like control statements, string manipulation functions and the built-in data structures like list and dictionary.
2	Be able to design, code and test small python programs that make use of functions.
3	Demonstrate usage of file handling and pattern matching using regular expressions.
4	Build GUI for applications using python libraries.
5	Demonstrate MySQL database connectivity using python scripting.
6	Apply the knowledge of python and use the language scripting elements and constructs, data structures, and repository of standard library, to develop real world applications.