# DAYANANDA SAGAR COLLEGE OF ENGINEERING

Date: 7/4/2018                                         Marks: 50

|  | Marks | LL | CO |
|---|---|---|---|
| 1. Given that dy/dx=x^2 (1+y) and y(1)=1; y(1.1)=1.233 ; y(1.2)=1.548; y(1.3)=1.979, find y at x=1.4 using Milne's predictor and corrector method. | 7 | 4 | 4 |
| 2. Explain the different types of system calls. | 10 | 6 | 1 |
| 3. Define OS. Discuss it's role from different perspectives. | 7 | 4 | 1 |
| 4. Using Taylor's series method, find y at x=0.1 and x=0.2 considering up to 4th degree terms. Given that dy/dx=x^2 y-1 and y(0)=1. | 6 | 5 | 2 |
| 5. Using Venn diagram, prove the following property of the symmetric difference: A∆(B∆C) = (A∆B)∆C | 6 | 1 | 2 |

| 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. |