

# DAYANANDA SAGAR COLLEGE OF ENGINEERING

Date: 13/4/2018

Marks: 50

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|---|----|---|---|
| 1. Explain special purpose registers  | 10 | 3 | 1 |
| 2. The weights of 1500 ball bearings are normally distributed with a mean of 635 gms and S.D of 1.36gms. If 300 random samples of size are drawn from this population , determine the expected mean and S.D of the sampling distribution of means if sampling is done a) with replacement b) without replacement. | 10 | 3 | 3 |
| 3. 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 |
| 4. Solve by Euler's modified method to obtain $y(1.2)$ given $dy/dx = (y+x)/(y-x)$ , $y(1)=2$ . Using step size $h=0.2$ .   | 10 | 1 | 2 |
| 5. List out and explain the different services that an OS provides  | 10 | 3 | 2 |

| CO | Statement  |
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| 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. |