

DAYANANDA SAGAR COLLEGE OF ENGINEERING

Date: 7/4/2018

Marks: 50

Marks LL CO

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| 1. Certain tubes manufactured by a company have mean life time of 800 hours and S.D of 60hours. Find the probability that a random sample of 16 tubes from the group will have a mean life time a) between 790 hours and 810 hours b) less than 785 hours c) more than 820 hours d) between 770 hours and 830 hours. | 10 | 6 | 1 |
| 2. Give the format of EFLAG register and explain each flag | 5 | 5 | 2 |
| 3. Explain the segment registers used in 8086 and explain clearly how physical address is calculated in 8086. | 10 | 4 | 6 |
| 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 $h=0.2$. | 7 | 1 | 2 |
| 5. If A,B,C are finite sets Prove the extended addition principle. | 6 | 4 | 2 |
| 6. The freshman class of a private engineering college has 300 students. It is known that 180 can program in PASCAL, 120 in FORTRAN, 30 in c++, 12 in PASCAL and c++, 18 in FORTRAN and c++, 12 in PASCAL and FORTRAN, and 6 in all three languages. If two students are selected at random, what is the probability that they can: i)Both program in PASCAL? ii) Both program only in PASCAL? | 6 | 5 | 6 |
| 7. Obtain $y(0.2)$ using Picard's method up to second approximation for the initial value problem $dy/dx = x^2 - 2y$, $y(0) = 1$ | 6 | 5 | 6 |

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.