

DAYANANDA SAGAR COLLEGE OF ENGINEERING

Date: 13/4/2018

Marks: 50

Marks LL CO

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|---|-----|-----|------|------|------|-------|--------|------------|---|--------|---|-----|------|------|------|-------|--------|------------|----|---|---|
| 1. Derive Mean and S.D for the Exponential Distribution. | 10 | 6 | 2 | | | | | | | | | | | | | | | | | | |
| 2. In examination 7% of students score less than 35% marks and 89% of students score less than 60% marks, Find the mean and standard deviation, if the marks are normally distributed. It is given that if $p(z) = \frac{1}{\sqrt{2\pi}} \int_0^z e^{-z^2/2} dz$ then $p(1.2263)=0.39$ $p(1.4757)=0.43$. | 10 | 5 | 3 | | | | | | | | | | | | | | | | | | |
| 3. A random variable ($X=x$) has the following probability distributions
<table border="0"><tr><td>x</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>$P(x)$</td><td>0</td><td>k</td><td>$2k$</td><td>$2k$</td><td>$3k$</td><td>k^2</td><td>$2k^2$</td><td>$(7k^2)+k$</td></tr></table> Find: (i) k (ii) $p(x < 6)$ (iii) $p(x > 6)$ (iv) Mean. Also find the probability distribution and distribution function of x . | x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | $P(x)$ | 0 | k | $2k$ | $2k$ | $3k$ | k^2 | $2k^2$ | $(7k^2)+k$ | 10 | 4 | 2 |
| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | | | | | | | |
| $P(x)$ | 0 | k | $2k$ | $2k$ | $3k$ | k^2 | $2k^2$ | $(7k^2)+k$ | | | | | | | | | | | | | |
| 4. Explain the segment registers used in 8086 and explain clearly how physical address is calculated in 8086. | 10 | 4 | 6 | | | | | | | | | | | | | | | | | | |
| 5. Explain special purpose registers | 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.