RAMAIAH UNIVERSITY OF APPLIED SCIENCES

Faculty of Mathematical and Physical Sciences
Assignment - 2

Department	: Mathematics and Statistics
Programme	: B.Tech (CSE)
Semester /Batch	: 5/2018
Course Code	: 19CSC301A
Course Title	: Probability and Statistics

Question No. 1   **(5 marks)**

The probability mass function of the amount of memory (GB) in a purchased flash drive is a random variable having the following probability distribution:

x	1	2	4	8	16
$p(x)$	0.06	0.13	0.32	0.38	0.11

Compute the following:
         a. $P(X \leq 4)$
         b. $P(X > 8)$
         c. $P(2 < X \leq 8)$

Question No. 2   **(10 marks)**

The probability density function of a continuous random variable X is given by:

$$f(x) = \begin{cases} cx + 3; & 3 \leq x \leq -2 \\ 3 - x; & 2 \leq x \leq 3 \\ 0, & elsewhere \end{cases}$$

a. Compute c.
b. Determine Expectation and Variance of X

Note: Date of Submission – on or before 25th December, 2020

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