**CANADIAN UNIVERSITY OF MODERN TECHNOLOGY (CUMT)**

**MILE 91**

**1 SILICON HILLS**

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**DEPARTMENT: COMPUTER SCIENCE**

**MODULE: DISCRIET MATHEMATICS**

**SEMESTER: FIRST SEMESTER**

**ASSIGNMENT ONE**

Q1.a. Find the coefficient of X10 in the expression of (x+2)15

Solution

Therefore;

Therefore, the coefficient of

Q1.b. Find the fourth term of

Solution

Fourth term of

Q1.c. Use the binomial theorem to expand

Solution

Q1.d. Use the binomial theorem to expand

Solution

Q2.a In how many ways 3 mathematics books, 4 history books, 3 chemistry books, and 2 biology books can be arranged on a shelf so that all books of the same subjects are together.

Solution

Take

Math’s books = 3

History books = 4

Chemistry books = 3

Biology books = 2

Q2.b. A student has to answer 10 questions, choosing at least 4 from each of parts A and B. if there are 6 questions in part A and 7 in part B, in how many ways can the student choose 10 question?

Solution