BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA

JULY ASSIGNMENT

CLASS: VIII (MATHEMATICS)

TOPICS: DATA HANDLIND & ALGEBRAIC EXPRESSIONS AND IDENTITIES

SECTION A (Multiple Choice Questions)

1. Side of a square is $(x - 2)$, what will be the area of the square?
   a) $x^2 - 4x - 4$ b) $x^2 + 4x + 4$
   c) $x^2 + 4x - 4$ d) $x^2 - 4x + 4$

2. The probability of getting a number less than 7 in a throw of dice is
   a) 0 b) 1 c) $\frac{1}{2}$ d) $\frac{1}{4}$

3. Assertion (A) –The coefficient in the term -5x is 5
   Reasons (R) –A coefficient is a number multiplied by a variable
   a) Both A and R are true and R is the correct explanation of A
   b) Both A and R are true but R is not the correct explanation of A
   c) A is true but R is false
   d) A is false but R is true

SECTION B (2 MARKS QUESTIONS)

4. The sides of a rectangle are $2a^2 + b$ and $6a^2 - 5b$. Find its perimeter.

5. A bag contains 6 red and 8 green balls. They are mix thoroughly and one ball is drawn at random. Find the probability of getting:
   i) a red ball ii) a green ball.

SECTION C (3 MARKS QUESTIONS)

6. Add $2x^2 - 5x^2y^2 + 2xy$ and $6xy + 4x^2 - 7$ and subtract the result from $-xy + x^2 + 7x^2y^2$.

7. Simplify $(x - 1)(3x^2 + 2x - 3)$ and find the value if $x = -1$.

SECTION D (5 MARKS QUESTIONS)

8. The data on the mode of transport used by 720 students are given below:

Mode of Transport	Bus	Cycle	Train	Car	Scooter
No. of Students	120	180	240	80	100

   Represent the above data by a pie chart.

9. Multiply $(x^3 - 3x^2 + x + 6)$ by $(1 - 2x + 3x^2)$

SECTION E (Case Study)

10. Teacher explained the concept of probability to the students of class VIII and wrote the following: Cards of spades and clubs are black cards. Cards of hearts and diamonds are red cards. The cards in each suit are ace, king, queen, jack, 10, 9, 8, 7, 6, 5, 4, 3 and 2. King, queen and jack are face cards. Answer the following question on the basis of above information.
    a) Find the probability of face cards.
    b) Find the probability of non face cards.
    c) Find the probability of getting a black card.
    d) Find the probability of getting non ace cards.