BURARI PUBLIC SCHOOL

a venture with UNIQUE

PERIODIC TEST III (2024-25)

CLASS: VI

MATHEMATICS **Date___/___/_____**

Time -1 hour M:M- 20 marks

Name: …….....…. Roll No. ..…….....T. Sign.....

Instructions:

- All questions are compulsory.
- This question paper is divided into three sections: A, B, C.

Section - A

Q1. **Multiple choice questions:** 4 marks

(i) The additive inverse of -7 is

(a) $\frac{1}{7}$ (b) $-\frac{1}{7}$ (c) 7 (d) -7

(ii) The sign of the product of two -ve integers is

(a) -ve (b) +ve (c) 0 (d) none of these

(iii) In x^3, the exponent is

(a) 3 (b) x (c) 1 (d) 0

(iv) The polynomial $(2xy - 9)$ *is*

(a) Monomial (b) Binomial (c) Trinomial (d) Multinomial

Q2. **Assertion and Reason:** 2 marks

In each of the following questions, an Assertion (A) and a corresponding Reason (R) supporting it is given.

Study both the statements and state which of the following is correct:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true and R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

1. **Assertion (A):** -12 is greater than -7
   Reason (R): Farther a number from 0 on the left, smaller is its value.

2. **Assertion (A):** 2p - 7 is an algebraic expression.
   Reason (R): It involves a variable and constant under an operation.

Section – B

Q3. Write the terms in the following: 0.5 mark

(i) $5abc^2 - 2ab + 7a^2c$

Q4. Subtract the following integers: 2 marks

(i) -9 from -3

(ii) -8 from -3

Q5. Write the following in expanded form: 0.5 mark

(i) $(pq)^3$

Q6. Solve the following: 2 marks

$(-3)^2 \times (-2)^2 \times (-1)^2$

Q7. Write an algebraic expression for: 1 mark

(i) p is added to q.

(ii) The product of a and b is added to 6 times a.

Q8. Rearrange the terms of the expression in increasing order of powers of x: 1 mark

(i) $x^7, x^4, x^{13}, x^{11}, x^2$

Q9. For the pattern: 5, 10, 15, 20,……

Find: (i) General rule

(ii) 100th term 2 marks

Q10. Find the value of:

$[20 - 2\{5+ (-12)\} \times \{2(5-7)\}]$ 2 marks

Q11. CASE STUDY 3 marks

Area and perimeter, in Maths, are the two important properties of two-dimensional shapes. Perimeter defines the distance of the boundary of the shape whereas area explains the region occupied by it.

Area and Perimeter is an important topic in Mathematics, which is used in everyday life. This is applicable to any shape and size whether it is regular or irregular. Every shape has its own area and perimeter formula. The unit for perimeter is m/cm. The area is expressed in m^2/cm^2 or square units.

The formula for the area of a rectangle is A = L × W where A is the area, L is the length, and W is the width of the rectangle. The formula for the perimeter of a rectangle is P = 2 (L + W) where P is the perimeter, L is the length and W is the width.

On the basis of above theory answer the following questions:

Q1. The area of a rectangle of length 2 cm and breadth 1 cm is
(a) 1 cm^2
(b) 2 cm^2
(c) 4 cm^2
(d) 8 cm^2

Q2. Area of floor of your classroom will be _____ as the area of roof
(a) Equal
(b) More
(c) Less
(d) None of the above

Q3. The area is expressed in which of the following units
(a) m^2
(b) cm^3
(c) cm
(d) m