

Periodic Assessment Test
Mathematics

Std-8
Time : 1 Hour

December-2020
Marks : 25

(L.O. - Learning Outcome)

L.O. Does addition and subtraction of basic algebraic expressions.

Q - 1 Do as directed.

1. Add $ab-bc$ into $bc-ca$ (2)
2. Subtract $(3x^2 - 2x + 5xy - 7)$ from $(8 - 9xy + 3x^2 - 5x)$ (3)

L.O. Multiplies the terms using identities.

Q - 2 Multiply the following using appropriate identities.

3. $(x + 7)(x + 7)$ (2)
4. $(3x + 1)(3x - 8)$ (3)

L.O. Calculates the area of polygons.

Q - 3 Solve the sums.

5. The area of rhombus is 120 cm^2 and one of the diagonals is 8 cm. Find the other diagonal. (2)
6. The diagonal of a quadrilateral shaped field is 24 m and the remaining opposite vertices are 8 m and 13 m. Find the area of the field. (3)

L.O. **Verifies Euler's formula for different cubes. Finds the number of edge, face and vertex, of cubes with the help of Euler's formula.**

Q - 4 Answer the following Questions.

7. Find the number of faces, edges and vertices of pyramid with square base. Verify Euler's formula for it. (5)

L.O. **Finds the surface and volume of cube cuboid and cylindrical objects.**

Q - 5 Do as directed.

8. If the length of a cube is 2 cm then find the surface area of the cube? (1)
9. The length of cuboid is 6 cm, width 3 cm and height 1 cm, then find the volume of cuboid. (2)
10. If the radius of a cylinder is 14 cm and the height is 5 cm, then find the volume of this cylinder. $(\pi = \frac{22}{7})$ (2)