TEST PAPER: MATHEMATICS

Time: 50 Minutes   **Class:** 8th C.B.S.E.

Max. Marks: 30 Marks   **Date:** 10th October, 2018

Marking Scheme: *Three questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.*
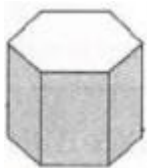
Question 1:

a. Simplify $(a + b + c)(a + b - c)$.

b. The number of face of a pyramid is 5. Find the number of its vertices when its edges are eight.

c. i. Find the product of 9a, 4ab and -2a.
    ii. Add: $a + b + ab$; $b - c + bc$ and $c + a + ac$ by row method.

Question 2:

a. Subtract $5x^2 - 6y^2 + 8y - 5$ from $7x^2 - 5xy + 10y^2 + 5x - 4y$ using column method.

b. Multiply $(5x^2 - 6x + 9)$ by $(2x - 3)$

c. i. Using suitable identities find $(xy + 3p)^2$
    ii. Find the product: $6xy$ and $3x^2y^3$

Question 3:

a. Find the volume of cuboid whose dimensions are $(x^2 - 2)$; $(2x + 4)$ and $(x - 3)$.

b. Name the following polyhedron:

How many faces, vertices, faces and edges of this solid are there?

c. i.   A polyhedron has 30 edges and 12 vertices. How many faces does it have?
    ii.   A polyhedron has 5 faces and 6 vertices. How many edges does it have?