SEVEN SQUARE ACADEMY
Academic Year – 2018-2019
Secondary Section

Name: Khush. Ragenwanshi **Roll No:** _____ **Date: 20/04/2018**

Class: X **Division:** I **Set : B**

Subject: Mathematics **TOTAL MARKS: 20** **Time: 1 Hr**

General Instructions: -

1. **Section A – Question no. 1 to Questions no. 3. Each contains 1 mark.**
2. **Section B – Question no. 4 to Question no. 7. Each contains 2 marks.**
3. **Section C – Question no. 8 to Question no. 10. Each contains 3 marks.**

Section – A

(3 x 1 = 3 Marks)

1. Prove that: $6^{-5} \times 6^{2} = 6^{-5+2}$
2. Find whether the following number is perfect square: 441.
3. If $x = 2, y = -3$ and $z = -2$, find the numerical value for the following expression: $xy - z + 1$.

Section – B

(4 x 2 = 8 Marks)

4. Find the cube root of (-15625).
5. Resolve into factors: $x2 - 5x + ax - 5a$.
6. Solve: $\frac{m}{2} + 6 = m - 8$.
7. The dimensions of cuboids are in the ratio 2:3:4 and its total surface area is 468 sq.cm. Find the dimensions $[T.S.A = 2(lb + bh + hl)]$.

Section – C

(3 x 3 = 9 Marks)

8. A tangent PQ at a point P of a circle of radius 12 cm meets a line through the centre O to a point Q. so that $OQ = 20\ cm$. Length PQ is ...
9. 1500 families with 2 children, were selected randomly and the following the data were recorded:

No. of girls in a family	2	1	0
No. of families	475	814	211

Compute the probability of a family, chosen at random having

a. 2 Girls b. 1 Girl c. No Girl

10. The perimeter of one face of a cube is 20 cm. Find its surface area.