D.A.V. PUBLIC SCHOOL, THANE
SESSION: 2021 – 2022
PERIODIC TEST I
SUBJECT: MATHEMATICS

STD : VIII **MAX. MARKS : 20**
DATE : 2/8/2021 **TIME: 1HR**

General Instructions :

1. **The question paper consists of 12 questions divided into 3 sections A, B and C.**
   Section A comprises of 5 questions of 2 marks each.
   Section B comprises of 5 questions of 3 marks each.
   Section C comprises of 2 questions of 5 marks each.
2. **Overall choice has been given in each section.**
3. **Use of calculator is not permitted.**

SECTION – A (Questions 1 to 5 carry 2 marks each)
(Attempt any 3 questions)

Q 1. Find the square root of 121 by the repeated subtraction method.

Q 2. Evaluate : $\sqrt[3]{343 \times 216}$

Q 3. If a and b vary inversely and a = 32, when b = 4. Find b, when a = 8.

Q 4. Find the smallest number by which 6655 be divided so that the quotient may be a perfect cube.

Q 5. Simplify : $\sqrt{81} + \sqrt{0.81} - \sqrt{0.0081}$

SECTION –B (Questions 6 to 10 carry 3 marks each)

(Attempt any 3 questions)

Q 6. Verify whether p and q vary directly with each other. If so, find the constant of variation (k).

p	**21**	**18**	**6**	**24**
q	**35**	**30**	**10**	**40**

Q 7. Find the cube root of 857375 through estimation.

Q 8. There are about 200 calories in 50 gms of cheese. Mary ate 70 gms of cheese. How many calories were in the cheese that she ate?

Q 9. Three numbers are in the ratio 1: 2 : 3. The sum of their cubes is 972. Find the numbers.

Q 10. Find the least number that should be subtracted from 5607 in order to get a perfect square? Also, find the square root of the number obtained.

SECTION-C (Questions 11 and 12 carry 5 marks each)

(Attempt any 1 question)

Q 11. a) How much time will a train, 170 metres long, take to pass a 130 m long tunnel, if its speed is 90 km/hr?

b) A school has 8 periods a day, each of 45 minutes duration. How long would each period be, if the school has 9 periods a day, assuming the number of school hours to be the same?

Q 12. Find : a) the square root of 6.0516 by long division method.

b) the square root of 2304 by prime factorization method .

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