Mathematics

(Chapter – 1) (Real Numbers) (Practice Test 3)

(Class X)

Time: 1 hour 15 minutes   **M. M: 25**

General Instructions:

➢ This question paper contains four sections: A, B, C and D. Each part is compulsory.
➢ Section A has 5 MCQ of one mark each.
➢ Section B has 3 questions of two marks each.
➢ Section C has 3 questions of three marks each.
➢ Section D has 2 questions of five marks each, attempt any 1 out of 2.
➢ There is no negative marking.

[Section – A]

1. The decimal form of $\dfrac{129}{2^2 5^7 7^5}$ is

   (A) terminating   (B) non-terminating
   (C) non-terminating non-repeating   (D) none of the above

2. HCF of 8, 9, 25 is
   (A) 8   (B) 9
   (C) 25   (D) 1

3. The product of a rational and irrational number is
   (A) rational   (B) irrational
   (C) both of the above   (D) none of the above

4. The sum of a rational and irrational number is
   (A) rational   (B) irrational
   (C) both of the above   (D) none of the above

5. If b = 3, then any integer can be expressed as a =
   (A) 3q, 3q + 1, 3q + 2   (B) 3q
   (C) 3q + 1   (D) none of the above

[Section – B]

6. If the HCF of 408 and 1032 is expressible in the form 1032 x 2 + 408 × p, then the value of p is?

7. If HCF (16, y) = 8 and LCM (16, y) = 48, then the value of y is?

8. The values of the remainder r, when a positive integer a is divided by 3 are?

[Section – C]

9. Three farmers have 490 kg, 588 kg and 882 kg of wheat respectively. Find the maximum capacity of a bag so that the wheat can be packed in exact number of bags.

10. In a school, there are two Sections A and B of class X. There are 48 students in Section A and 60 students in Section B. Determine the least number of books required for the library of the school so that the books can be distributed equally among all students of each Section.

11. If the HCF of 65 and 117 is expressible in the form 65 m – 117, then the value of m is?

[Section – D]

12. Find the HCF (865, 255) using Euclid's division lemma.

13. Let a and b be positive integers. Show that $\sqrt{2}$ always lies between $\dfrac{a}{b}$ and $\dfrac{a+2b}{a+b}$

Mathematics

Hints and Answers

Section – A

1. Non-terminating non-repeating

2. 1

3. Irrational

4. Irrational

5. 3q, 3q + 1, 3q + 2

Section - B

6. -5

7. 24

8. 0, 1, 2

Section – C

9. 98 kg

10. 240

11. 2

Section – D

12. 5

13. Apply Trick.