Below are the MCQs for chapter 1-Real Numbers.

1. The decimal expansion of $120/(3^2 \times 5^7)$ is

(a)Terminating   (b)Non-terminating

(c)Non-terminating and Non-repeating   (d)None of the above

Answer: **(b)**
Explanation: $120/((3^2 \times 5^7)) = 0.000170666666…$

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2. For some integer n, the odd integer is represented in the form of:

(a) n   (b) n+1   (c) 2n+1   (d) 2n

Answer: **(c)**

Explanation: Since 2n represents the even numbers, hence 2n+1 will always

represent the odd numbers. Suppose if n=2, then 2n=4 and 2n+1 = 5.

3.HCF of 26 and 91 is:
(a)15   (b)13   (c)19   (d)11
Answer: **(b)**
Explanation: The prime factorisation of 26 and 91 is;
26 = 2 x 13
91 = 7 x 13
Hence, HCF (26,91) = 13

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4. Which of the following is not irrational?

(a) $(3+\sqrt{7})$ (b) $(3-\sqrt{7})$ (c) $(3+\sqrt{7})(3-\sqrt{7})$ (d) $3\sqrt{7}$

Answer: **(c)**

Explanation: If we solve, $(3+\sqrt{7})(3-\sqrt{7})$, we get;

$(3+\sqrt{7})(3-\sqrt{7}) = 3^2-(\sqrt{7})^2 = 9 – 7 = 2$ [By $a^2-b^2 = (a-b)(a+b)$]

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5. The addition of a rational number and an irrational number is equal to:

(a)rational number   (b)Irrational number   (c)Both   (d)None of the above

Answer: **(b)**

6. The multiplication of two irrational numbers is:

(a)irrational number   (b)rational number   (c)Both   (d)None

Answer: **(a)**

7.If set A = {1,2,3,4,5,…} is given, then it represents:

(a)Whole numbers(b)Rational Numbers(c)Natural numbers(d)Integers

Answer: **(c)**

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8. If p and q are integers and is represented in the form of p/q, then it is a:

(a)Whole numbers(b)Rational numbers(c)Natural numbers(d)Even numbers

Answer: **(b)**

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9. The largest numbers that divide 70 and 125, which leaves the remainders 5 and 8, is:

(a)65   (b)15   (c)13   (d)25

Answer: **(c)**

Explanation: 70 -5 = 65 and 125-8=117

HCF (65, 117) is the largest number that divides 70 and 125 and leaves remainder 5 and 8

HCF (65, 117) = 13

10.The least number that is divisible by all the numbers from 1 to 5.

(a)70   (b)60   (c)80   (d)90

Answer: **(b)**

Explanation: The least number will be LCM of 1,2,3,4,5.

Hence, LCM (1,2,3,4,5) = 2 x 2 x 3 x 5 = 60