

Lesson Based Assessment Test

Chapter : Real Numbers

Marks : 20

Subject : **Mathematics**

Time : 40 Minutes

General Instructions :

-  This question paper has a total of 11 questions; questions have been selected and prepared from the comprehensive question bank of lesson-based assessment.
-  Any missing data may be suitably assumed and follow the instructions given for the questions.
-  No space is provided for rough work in this question paper.
-  The time allotted for answering the question paper is given at the top of the question paper and the numbers given on the right side indicate the full marks for the questions.

- I. For each of the following questions/incomplete statements, four alternatives are given. Only one of them is correct or most appropriate. Choose the correct alternative and write the complete answer with its letter.** **3 × 1 = 3**

1. If 'a' and 'b' are co-primes, then their H.C.F is,

(A) 0 (B) $a \times b$ (C) 1 (D) $a + b$

2. $a = 2^4 \times 3^2 \times 5$ and $b = 2^3 \times 3^4 \times 7$ then H.C.F of (a, b) is

(A) $2^3 \times 3^2$ (B) $2^4 \times 3^4$ (C) $2^7 \times 3^6$ (D) $2^3 \times 3^4$

3. Two positive integers a and b are expressed as, $a = x^3y^2$ and $b = xy^3$. If x and y are prime numbers, then the H.C.F of (a, b) is,

(A) xy (B) xy^2 (C) x^3y^3 (D) x^2y^2

- II. Answer the following questions.**

3 × 1 = 3

4. If two numbers are of the form $8x$ and $12x$ and their H.C.F is 20, find the value of x.
5. If the H.C.F of the numbers 24 and 36 is 12, then find their L.C.M.

6. Is $\sqrt{98}$ rational or irrational ?

III. Answer the following questions.

$$2 \times 2 = 4$$

7. $7 \times 11 \times 13 + 13$ is a composite number. Justify this statement.
8. H.C.F = 12 and L.C.M = 720 of two numbers. One number is 48, then find the other number.

IV. Answer the following questions.

$$2 \times 3 = 6$$

9. The sum of two numbers is 84 and the H.C.F is 6. Find the numbers if the numbers are in the ratio 2:5.
10. An army contingent of 616 members is to march behind an army band of 32 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march ? Also find the number of rows of each team.

V. Answer the following questions.

$$1 \times 4 = 4$$

11. Find the H.C.F and L.C.M of 360, 540 and 840.
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