

## H.C.F. and L.C.M. Aptitude Online Test Questions Pdf

1. The least number, which when divided by 12, 15, 20 and 54 leaves in each case a remainder of 8 is

- a. 504
- b. 536
- c. 544
- d. 548

Ans: D

$$\begin{aligned}\text{Required number} &= (\text{L.C.M. of } 12, 15, 20, 54) + 8 \\ &= 540 + 8 = 548.\end{aligned}$$

2. Three pieces of timber 42 m, 49 m and 63 m long have to be divided into planks of the same length. What is the greatest possible length of each plank?

- a. 7 m
- b. 14 m
- c. 42 m
- d. 63 m

Ans: A

Greatest possible length of each plank = (H.C.F. of 42, 49, 63) m = 7m.

3. Find the least number which when decreased by 11 is divisible by 14, 15, 21, 32 and 60.

- a. 4371
- b. 3271
- c. 3371
- d. 3360

Ans: C

$$\begin{aligned}\text{Required number} &= (\text{L.C.M. of } 14, 15, 21, 32, 60) + 11 \\ &= 3360 + 11 = 3371.\end{aligned}$$

4. Four bells start ringing simultaneously at the difference of 3, 4, 5 and 8 seconds. After how many minutes they will ring simultaneously again?

- a. 2 minutes
- b. 120 minutes
- c. 5 minutes
- d. 4 minutes

Ans: A

L.C.M. of 3, 4, 5 and 8 = 120 secs = 2 minutes.

5. The H.C.F. of 1.75, 5.6 and 7 is

- a. 0.07
- b. 0.7
- c. 3.5
- d. 0.35

Ans: D

Given numbers with two decimal places are: 1.75, 5.60 and 7.00. Without decimal places, these numbers are: 175, 560 and 700, whose H.C.F. is 35.

$\therefore$  H.C.F. of given numbers = 0.35.

6. The capacity of two pots is 120 litres and 56 litres respectively. Find the capacity of a container which can exactly measure the contents of the two pots.

- a. 7500 cc
- b. 7850 cc
- c. 8000 cc

d. 9500 cc

Ans: C

Required capacity

= H.C.F. of 120 litres and 56 litres

= 8 litres = 8000 cc. [ $\because$  1 litre = 1000 cc]

7. The largest natural number which exactly divides the product of any four consecutive natural number is

a. 6

b. 12

c. 24

d. 120

Ans: C

$$1 \times 2 \times 3 \times 4 = 24$$

Therefore, required number = 24.

8. Three different containers contain 496 litres, 403 litres and 713 litres of water respectively. What biggest measure can measure all the different quantities exactly?

a. 1 litre

b. 7 litres

c. 31 litres

d. 41 litres

Ans: C

Required measurements = HCF of 496, 403 and 713 litres = 31 litres.

9. The highest common factor of 0 and 6 is

a. 0

b. 3

c. 6

d. Undefined

Ans: D

Since division by 0 is undefined, so 0 cannot be a factor of any natural number.

Hence, H.C.F. of 0 and 6 is undefined.

10. A daily wage labourer was engaged for a certain number of days for Rs. 5750, but being absent on some of those days he has paid only Rs. 5000. What was his maximum possible daily wage?

a. Rs. 125

b. Rs. 250

c. Rs. 375

d. Rs. 500

Ans: B

Maximum possible daily wage = H.C.F. of ₹ 5750 and ₹ 5000 = ₹ 250.

11. What is the least number which when divided by 8, 9, 12 and 15 leaves the same remainder 1 in each case?

a. 179

b. 181

c. 359

d. 361

Ans: D

Required number = LCM of (8, 9, 12, 15) + 1 = 361.

12. Find the greatest number of four digits which when divided by 10, 15, 21 and 28 leaves 4, 9, 15 and 22 as remainders, respectively.

- a. 9654
- b. 9666
- c. 9664
- d. 9864

Ans: A

First, find the greatest number of four digits that is divisible by the L.C.M. of 10, 15, 21 and 28 and then subtract 6 from it to get the required number.

13. A heap of stones can be made up into groups of 21. When made up into groups of 16, 20, 25 and 45; there are 3 stones left in each case. How many stones at least can there be in the heap?

- a. 7203
- b. 2403
- c. 3603
- d. 4803

Ans: A

L.C.M. of 16, 20, 25, 45 = 3600

1<sup>st</sup> number =  $3600 \times 1 + 3$

= 3603 which is not divisible by 21.

2<sup>nd</sup> number =  $3600 \times 2 + 3$

= 7203 which is divisible by 21.

14. The ratio of two numbers is 3 : 4 and their H.C.F. is 4. Their L.C.M. is

- a. 12
- b. 16
- c. 24
- d. 48

Ans: D

Let the numbers be  $3x$  and  $4x$ . Then, their H.C.F. =  $x$ . So,  
 $x = 4$ .

So, the numbers are 12 and 16.

L.C.M. of 12 and 16 = 48.

15. The H.C.F. of two numbers is 23 and the other two factors of their L.C.M. are 13 and 14. The larger of the two numbers is

a. 276

b. 299

c. 322

d. 345

Ans: C

Clearly, the numbers are  $(23 \times 13)$  and  $(23 \times 14)$ .

$\therefore$  Larger number =  $(23 \times 14) = 322$ .

16. Four metal rods of lengths 78 cm, 104 cm, 117 cm and 169 cm are to be cut into parts of equal length. Each part must be as long as possible. What is the maximum number of pieces that can be cut?

a. 27

b. 36

c. 43

d. 480

Ans: B

Maximum length of each part = H.C.F. of 78 cm, 104 cm,  
117 cm, 169 cm = 13 cm.

$\therefore$  Number of pieces =

$$\left( \frac{78 + 104 + 117 + 169}{13} \right) = \frac{468}{13} = 36.$$