LCM and HCF questions for Competitive Exams. Important selected MCQ question answer with solution for the study of SSC CGL, CHSL, CPO, GD, NRA CET, RRB, UPSSSC PET and Mains , Bank and other Govt jobs exams.

Topic wise LCM and HCF Questions

Type-I : Questions Based on Formula (LCM × HCF = First Number × Second Number)

Q.1: The LCM of two numbers is 2079 and their HCF is 27. If one of the numbers is 189, the other number is

1) 297
2) 584
3) 189
4) 216

Ans: 1) 297

HCF x LCM = First number x Second number
2079 x 27 = 189 x Second number
Second number = 297

Q.2: The product of two co-prime numbers is 117. Then their LCM is

1) 117
2) 9
3) 13
4) 39

Ans: 1) 117

HCF of two Co-prime numbers are always 1
HCF x LCM = First number x Second number =117
1 x LCM = 117

Q.3: The LCM of three different numbers is 120. Which of the following cannot be their HCF?

1) 8
2) 12
3) 24
4) 35

Ans: 4) 35

120 = 2x2x2x3x5
Possible value of HCF are 4,8,12,24
Hence 35 can not be HCF

Q.4: The LCM of two numbers is 4 times their HCF. The sum of LCM and HCF is 125. If one of the numbers is 100, then the other number is

1) 5
2) 25
3) 100
4) 125
Ans: 2) 25
Let LCM is L and HCF is H
L = 4H and L +H =125
5H =125, H = 25
L = 4H = 100
L x H = 100 x Second number
Second number = 25

Q.5: The product of two numbers is 216. If the HCF is 6, then their LCM is
1) 72
2) 60
3) 48
4) 36
Ans: 4) 36
HCF x LCM = First number x Second number
6 x LCM = 216
LCM = 36

Q.6: The product of two numbers is 4107. If the HCF of the numbers is 37, then a greater number is

1) 185
2) 111
3) 107
4) 101
Ans: 2) 111
First number x Second number =HCF x LCM
4107 = 37 x LCM
LCM = 111
Numbers are 111 and 37

Q.7: LCM of two numbers is 225 and their HCF is 5. If one number is 25, then the other number will be

1) 5
2) 25
3) 45
4) 225
Ans: 3) 45
First number x Second number =HCF x LCM
25 x S = 5 x 225
S = 45

Q.8: The LCM of two numbers is 864 and their HCF is 144. If one of the number is 288, then the other number is

1) 576
2) 1296
3) 432
4) 144
Ans: 3) 432
First number x Second number =HCF x LCM
288 x S = 864 x 144
S = 432

LCM and HCF MCQ Questions

Type-II: Finding the LCM of the Numbers

Q.9: Find the least number which when divided separately by 15, 20, 36 and 48 leaves 3 as remainder in each case.
1) 183
2) 243
3) 483
4) 723
Ans: 4) 723
LCM of 15,20,36, 48 is 2x2x3x5x3x4 = 720
Required number is 720 +3 = 723

Q.10: The greatest 4-digit number exactly divisible by 10, 15, 201 is

1) 9990
2) 9960
3) 9980
4) 9995
Ans: 2) 9960
LCM of 10,15,20 is 60
Divide largest 4 digit number 9999 by 60 and remainder is 39
Hence required number is 9999 - 39 =9960

Q.11: The bells begin to toll together and they toll respectively at intervals of 6, 7, 8, 9 and 12 seconds. After how many seconds will they toll together again?

1) 72 Seconds
2) 612 Seconds
3) 504 Seconds
4) 318 Seconds
Ans: 3) 504 second
LCM of 6, 7, 8, 9 and 12 seconds is 504 seconds

Q.12: The greatest number of four digits which when divided by 3, 5, 7, 9 leave remainders 1, 3, 5, 7 respectively is

1) 9763
2) 9764
3) 9766
4) 9765

Ans: 1) 9763

3 – 1 = 2, 5 – 3 = 2, 7 – 5 = 2 and 9 – 7 = 2.
And LCM of 3, 5, 7 and 9 is 315.
If we divide the largest 4-digit number 9999 by 315, it gives remainder 234. The number divisible by 315 = 9999 – 234= 9765
Hence, required number is 9765 – 2 = 9763

Q.13: A, B and C start running at the same time and at the same point in the same direction in a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds. After what time will they meet again at the starting point?

1) 26 minutes 18 seconds
2) 42 minutes 36 seconds
3) 45 minutes
4) 46 minutes 12 seconds

Ans: 4) 46 minutes 12 seconds

LCM = 2x2x7x9x11= 2772 seconds
Thus, required time = 2772 seconds = 46 minutes 12 seconds

Q.14: The least number which when divided by 16, 18, 20 and 25 leaves 4 as remainder in each case but when divided by 7 leaves no remainder is

1) 17004
2) 18000
3) 18002
4) 18004

Ans: 4) 18004

LCM of 16, 18, 20 and 25 is = 3600
Therefore, the number which is exactly divisible by 7 is 3600 x K + 4.
When K = 5, the number is 3600 x (5) + 4 = 18004

Q.15: The least number which when divided by 5, 6, 7 and 8 leaves a remainder 3, but when divided by 9 leaves no remainder is

1) 1677
2) 1683
3) 2523
4) 3363

Ans: 2) 1683

LCM of 5, 6, 7 and 8 is 840.
Therefore, required number is 840 x k + 3, which is exactly divisible by 9.
For k = 2, Required number = 840 x (2) + 3
= 1680+3 = 1683

Q.16: The smallest perfect square divisible by each of 6, 12 and 18 is

1) 196
2) 144
3) 108
4) 36
Ans: 4) 36 LCM of 6, 12 and 18 is 36 which itself is a perfect square of 6

Q.17: The smallest number, which, when divided by 12 or 10 or 8, leaves remainder 6 in each case, is

1) 246
2) 186
3) 126
4) 66
Ans: 3) 126
LCM = 120
Required number is 120 +6 = 126

Q.18: The greatest number of four digits which when divided by 12, 16 and 24 leave remainders 2, 6 and 14 respectively is

1) 9974
2) 9970
3) 9807
4) 9998
Ans: 1) 9974
Since, 12 – 2 = 10, 16 – 6 = 10 and 24 – 14 = 10
The LCM of 12, 16 and 24 is 48.
Therefore, the largest 4-digit number exactly divisible by 48 is 9984.
Hence, required number = 9984 – 10 = 9974

Q.19: The smallest number, which when increased by 5 is divisible by each of 24, 32, 36 and 564 is

1) 869
2) 859
3) 4320
4) 427
Ans: 2) 859

LCM = 864
Number = 864 - 5 =859

Q.20: What is the LCM of 1.08, 0.36 and 0.9

1) 1.08
2) 0.9
3) 10.8
4) 5.4
Ans: 4) 5.4
LCM of 108, 36, and 90 is 540

LCM and HCF Questions for Competitive Exams

Type-III: Finding the HCF of Numbers

Q.21: The greatest number by which 2300 and 3500 are divided leaving the remainders of 32 and 56 respectively is

1) 136
2) 168
3) 42
4) 84
Ans: 4) 84
Required greatest number = HCF of (2300 – 32) and (3500 – 56)
= HCF of 2268 and 3444 = 84

Q.22: The greatest number that will divide 729 and 901 leaving remainders 9 and 5 respectively is

1) 15
2) 16
3) 19
4) 20
Ans: 2) 16
Required number = HCF of (729 – 9) and (901 – 5)= HCF of 720 and 896 =16

Q.23: Three tankers contain 403 litres, 434 liters and 465 liters of diesel respectively. Then the maximum capacity of a container that can measure the diesel of the three containers the exact number of times is

1) 31 Litres
2) 62 Litres
3) 41 Litres
4) 84 Litres

Ans: 1) 31 Liters
HCF of 403, 434 और 465 = 31

Q.24: 84 Maths books, 90 Physics books and 120 Chemistry books have to be stacked topic-wise. How many books will be there in each stack so that each stack will have the same height too?

1) 12
2) 18
3) 6
4) 21
Ans: 3) 6
HCF of 84, 90 and 120 = 6

Q.25: A milk vendor has 21 liters of cow milk, 42 liters of toned milk and 63 liters of double toned milk. If he wants to pack them in cans so that each can contain the same liters of milk and does not want to mix any two kinds of milk in a can, then the least number of cans required is

1) 3
2) 6
3) 9
4) 12
Ans: 2) 6
HCF of 21,42,and 63 is 21

Q.26: Which is the least number of square tiles required to pave the floor of a room 15 m 17 cm long and 9 m 2 cm broad?

1) 840
2) 841
3) 820
4) 814
Ans: 4) 814
Length = 1517 cm, Breath = 902 cm
LCM of 1517 and 902 = 41
Number of tiles required = Area of floor / Area of Tile = 1515 x 902/ 41 x 41 = 814

Q.27: A milkman has 75 liters of milk in one can and 45 liters in another. The maximum capacity of container which can measure the milk of either container the exact number of times is

1) 1 Litre
2) 5 Litres
3) 15 Litres

4) 25 Litres
Ans: 3) 15 Liters
LCM of 75 and 45 = 15

Q.28: The greatest number, which when divided by 989 and 1327 leave remainders 5 and 7 respectively is

1) 8
2) 16
3) 24
4) 32
Ans: 3) 24 HCF of (989 – 5) and (1327 – 7)
= HCF of 984 and 1320 = 24

Q.29: The maximum number of students among whom 1001 pens and 910 pencils can be distributed in such a way that each student gets the same number of pens andsame number of pencils is

1) 91
2) 910
3) 1001
4) 1911
Ans: 1) 91
HCF of 1001 and 910 = 91

LCM and HCF Questions for Competitive Exams

Type-IV: Ratio of the Numbers : LCM and HCF Questions

Q.30: The HCF and LCM of two numbers are 21 and 84 respectively. If the ratio of the two numbers is 1 : 4, then the largest of the two numbers is

1) 12
2) 108
3) 48
4) 84
Ans: 4) 84
HCF =21, Numbers are 21 x and 21y Since, ratio of numbers = 1 : 4
Then, larger number = 4 × 21 = 84

Q.31: If x : y be the ratio of two whole numbers and z be their HCF, then the LCM of those two numbers is

1) yz
2) xz/y
3) xy/z

4) xyz
Ans: 4) xyz
numbers are zx and zy.
Product of two numbers = LCM × HCF
i.e., zx × zy = z × LCM
i.e., LCM = xyz

Q.32:Three numbers are in the ratio 1 : 2 : 3 and their HCF is 12. The numbers are

1) 12, 24, 36
2) 5, 10, 15
3) 4, 8, 12
4) 10, 20, 30
Ans: 1) 12, 24, 36
Assume that the numbers are x, 2x and 3x.
Since, HCF = 12 then x = 12
Therefore, the numbers are 12, 2 × 12 = 24 and 3 × 12 = 36

Q.33: The ratio of two numbers is 3 : 4 and their HCF is 5. Their LCM is

1) 10
2) 60
3) 15
4) 12
Ans: 2) 60
Assume that the numbers are 3x and 4x.
Since, HCF = 5 then x = 5
Therefore, the numbers are 3 × 5 = 15 and 4 × 5 = 20
The LCM of 15 and 20 is 60.

Q.34: Two numbers are in the ratio 3 : 4. If their HCF is 4, then their LCM is

1) 48
2) 42
3) 36
4) 24
Ans: 1) 48
Assume that, the numbers are 3x and 4x respectively.
Since, HCF = 4 then x = 4
Therefore, the numbers are 3 × 4 = 12 and 4 × 4 = 16.
LCM of 12 and 16 is 48

Q.35: The ratio of two numbers is 4 : 5 and their HCF is 8. Then their LCM is

1) 130
2) 140

3) 150
4) 160
Ans: 4) 160
Assume that the numbers are 4x and 5x.
Since, HCF = 8 then x = 8.
Therefore, the numbers are 4 × 8 = 32 and 5 × 8 = 40.
The LCM of 32 and 40 is 160

Q.36: The LCM of two numbers is 48. The numbers are in the ratio 2 : 3. The sum of the numbers is

1) 28
2) 32
3) 40
4) 64
Ans: 3) 40
Assume that the numbers are 2x and 3x.
LCM = 2 × 3 × x = 48
i.e., 6x = 48
i.e., x = 8
Therefore, the sum of the numbers = 2 ×8 + 3 × 8 = 16 + 24 = 40

Q.37: The ratio of two numbers is 4 : 5 and their LCM is 120. The numbers are

1) 30 and 40
2) 40 and 32
3) 24 and 30
4) 36 and 20
Ans: 3) 24 and 30
Assume that, the numbers are 4x and 5x respectively.
LCM = 4 × 5 × x = 120
i.e., 20x = 120
i.e., x = 6
Number is 24 and 30

Q.38: If the ratio of two numbers is 2 : 3 and their LCM is 54, then the sum of the two numbers is

1) 5
2) 15
3) 45
4) 270
Ans: 3) 45
Assume that, the numbers are 2x and 3x respectively.
LCM = 2 × 3 × x = 54
i.e., 6 x = 54

i.e., x = 9
Therefore, the numbers are 2 × 9 = 18 and3 × 9 = 27.
And sum of the numbers is 18 + 27 = 45.

Q.39: The LCM and the HCF of the numbers 28 and 42 are in the ratio

1) 6:1
2) 2:3
3) 3:2
4) 7:2
Ans: 1) 6:1
LCM of 28 and 42 = 84, HCF=14
LCM : HCM = 84:14 = 6:1

Type-V : Addition, Subtraction, Multiplication and Division of Numbers

Q.40: The number between 4000 and 5000 that is divisible by each of 12, 18, 21 and 32 is

1) 4023
2) 4032
3) 4302
4) 4203
Ans: 2) 4032
LCM of 12, 18, 21 and 32 is 2016.
Then, required number = 2016 × 2 = 4032

Q.41: A number between 1000 and 2000 which when divided by 30, 36 and 80 gives a remainder 11 in each case is

1) 1451
2) 1641
3) 1712
4) 1523
Ans: 1) 1451
LCM of 30, 36, 80 is 720.
Required number = 2 × 720 + 11 = 1451

Q.42: The greatest four-digit number which is exactly divisible by each one of the numbers 12, 18, 21 and 28 is

1) 9828
2) 9288
3) 9882
4) 9928
Ans: 1) 9828
LCM of 12, 18, 21 and 28 is 252.

If we divide the largest 4-digit number 9999 by 252, it gives a remainder 171.
Then, required number = 9999 – 171 = 9828

Q.43: Let x be the smallest number, which when added to 2000 makes the resulting number divisible by 12, 16, 18 and 21. The sum of the digits of x is

1) 7
2) 5
3) 6
4) 4

Ans: 1) 7
LCM of 12, 16, 18 and 21 is 1008.
Then multiple of 1008 = 2 × 1008 = 2016
Required number = 2016 – 2000 = 16
Sum of the digits = 1 + 6 = 7

Q.44: The number between 3000 and 4000 which is exactly divisible by 30, 36 and 80 is

1) 3625
2) 3250
3) 3500
4) 3600

Ans: 4) 3600 The LCM of 30, 36 and 80 is = 720.
Required number = Multiple of 720 = 720 × 5 = 3600 Since 3000 < 3600 < 4000

Q.45: The LCM of two numbers is 44 times of their HCF. The sum of the LCM and HCF is 1125. If one number is 25, then the other number is

1) 1100
2) 975
3) 900
4) 800

Ans: 1) 1100
Let HCF be H then LCM = 44H
44H + H = 1125 ⇒ H = 25
Therefore, LCM = 44 × 25 = 1100
LCM x HCM = First number x Second number
1100 x 25 = 25 x Second number
Second number = 1100

Q.46: The LCM of two numbers is 20 times their HCF. The sum of HCF and LCM is 2520. If one of the number is 480, then the other number is

1) 400
2) 480
3) 520

4) 600
Ans: 4) 600
If HCF is H then LCM =20H.
Then, H + 20H = 2520 ⇒ H =120
Therefore,
LCM = 2400
LCM x HCM = First number x Second number
2400 x 120 = 480 x Second number
Second number = 600

Q.47: Which least number should be subtracted from the number 36798 so that the new number is completely divisible by 78?

1) 18
2) 60
3) 38
4) 68
Ans: 2) 60
Divide **36798** by 78, remainder is 60.

Thanks for attempt LCM and HCF MCQ Questions for Competitive Exams

Looking for LCM and HCF MCQ Questions in Hindi - Click here

Number System Question for Competitive Exams in Hindi for Practice

Number System MCQ for Competitive Exams in English

Average Questions in Hindi for Competitive Exams

Percentage Questions for Competitive Exams in Hindi