Number System, Factors, HCF & LCM

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 1***

Find the HCF of 1156 & 1462.

A) 34 B) 68 C) 102 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 2***

Find the HCF of 2/5, 12/35 & 16/55.

A) 385/2 B) 385/4 C) 1/385 D) 2/385

***DIRECTION for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 3***

Salman, while trying to make a mosaic, tries to arrange the tile pieces he has into groups of 24, 36 and 42. He leaves remainders of 9, 21 and 27 respectively each time. Find the least number of tiles that Salman has

A) 504 B) 519 C) 536 D) 489

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 4***

Find the largest number which leaves the same remainder when dividing 98, 120 and 153.

A) 3 B) 5 C) 10 D) 11

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 5***

Three different containers contain different quantities of a mixture of milk and water, whose measurements are 403 kg, 434 kg and 465 kg. What biggest measure must be there to measure all the different quantities exactly?

A) 70 kg B) 51 kg C) 31 kg D) 41 kg

***Question No. : 6***

Find the greatest number which is such that when 12288, 19139, 28200 are divided by it, the remainders are all the same.

A) 221 B) 200 C) 139 D) 288

***DIRECTIONS for the question:****Solve the following question and mark the best possible option.*

***Question No. : 7***

S is a set of three integers such that the sum and HCF of the integers in the set is 168 and 8 respectively. If at least one integer in the set is not greater than 24, then how many such sets are possible?

A) 18 B) 20 C) 21 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 8***

The H.C.F of two numbers is 8 and their L.C.M is 96. If one of the numbers is 32, then the other is

A) 24 B) 42 C) 16 D) None of the above

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 9***

Which is the least number that must be subtracted from 1856, so that the remainder when divided by 7, 12, and 16 is 4 ?

A) 137 B) 1361 C) 140 D) 172

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 10***

What is the minimum number of apples required so that they can be divided in the groups of 2s, 3s, 4s and 5s each without having any extra apple left?

A) 30 B) 24 C) 20 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 11***

The smallest number which when divided by 4, 6 or 7 leaves a remainder of 2, is

A) 44 B) 62 C) 80 D) 86

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 12***

Few numbers have a property that when divided by 11, 13, 17 they will leave remainders 10, 12 and 16 respectively. Find the smallest such number, which is greater than 7000?

A) 2430 B) 7292 C) 4861 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 13***

The HCF and LCM of two numbers are 21 and 4641 respectively. If one of number lies between 200 and 300, the two numbers are

A) 273, 357 B) 273, 361 C) 273, 359 D) 273, 363

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 14***

In a morning walk three persons step off together, their steps measure 80 cm, 85 cm and 90 cm respectively. What is the minimum distance each should walk so that they can cover the distance in complete steps?

A) 122 m 40 cm B) 123 m 45 cm C) 122 m 45 cm D) 122 m 50 cm

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 15***

The H.C.F of two numbers is 11 and their L.C.M is 7700. If one of the numbers is 275, then the other is?

A) 279 B) 283 C) 308 D) 318

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 16***

Find the maximum number of girls, among whom 2923 bags and 3239 eyeliners can be distributed in such a way that each girl gets the same number of bags and eyeliners.

A) 80 B) 79 C) 78 D) 81

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 17***

There are five bells which start ringing together at intervals of 3, 6, 9, 12 and 15 seconds respectively. In 36 minutes, how many times will the bells ring simultaneously, including the one at start?

A) 13 B) 12 C) 6 D) 5

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 18***

If the LCM of Q and 360 is 1440 and the HCF of Q and 300 is 60, find the sum of the digits of Q.

A) 12 B) 9 C) 6 D) Cannot be determined

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 19***

The H.C.F. and L.C.M. of two numbers are 8 and 48 respectively. If one of the numbers is 24, then the other number is

A) 48 B) 36 C) 24 D) 16

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 20***

Two numbers are in the ratio 3:4. Their L.C.M. is 84. The greater number is

A) 21 B) 4 C) 28 D) 84

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 21***

What is the least number which, when divided by 5, 6, 7, 8 gives the remainder 3 but is divisible by 9?

A) 1463 B) 1573 C) 1683 D) 1793

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 22***

HCF of two numbers is 13. If the other factors of their LCM are 7 and 3, what is the smaller number of the two, given both the numbers are greater than 13?

A) 273 B) 39 C) 91 D) 130

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 23***

L.C.M. of two numbers is 120 and their H.C.F. is 10. Which of the following can be the sum of those two numbers?

A ) 160 B) 80 C) 60 D) 70

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 24***

Every Wednesday at the Pizza Express, the manager gives away free slices of pizza and sodas. Every 6th customer gets a free slice of pizza and every 8th customer gets a free soda. The Pizza Express served 75 customers last Wednesday. How many customers received both a free slice of pizza and a free soda?

A) 0 B) 1 C) 2 D) 3

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 25***

What is the greatest number of four digits that when divided by any of the numbers 6,9,12,17 leaves a remainder of 1?

A) 9997 B) 9793 C) 9895 D) 9487

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 26***

When a number is divided by 84, the remainder is 40. If this number is divided by 12, the remainder is

1. 2 B) 4 C)6 D)8

***DIRECTION for the question:****Solve the following question and mark the best possible option*

***Question No. : 27***

The highest power of 10 that will divide 100! is \_\_\_\_\_\_\_\_

A) 2 B) 24 C ) 4 D) 25

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 28***

The number plate of a bus had peculiarity. The number of the bus was a perfect square. It was also a perfect square when the plate was turned upside down. The bus company had only four hundred buses numbered from 101 to 500. What was the number?

A) 169 B) 36 C) 196 D) Cannot say

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 29***

The unit digit in the sum of (124)372 + (124)373 is

A) 5 B) 4 C) 2 D) 0

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 30***

Find number of zeros at the end of 1090!

A) 250 B ) 268 C) 269 D) 270

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***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 31***

After the division of a number successively by 3, 4, and 7, the remainders obtained are 2, 1 and 4 respectively. What will be the remainder if 84 divide the same number ?

A) 80 B) 76 C) 41 D) 53

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 32***

What is the highest power of 2 that divides 1015 × (1023 + 20482) completely?

A) 37 B) 38 C) 57 D) 15

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 33***

Each of the series S1 = 2 + 4 + 6 + ……… and S2 = 3 + 6 + 9 + ……… is continued to 100 terms. How many terms of both the series are identical?

A) 34V B) 33 C) 32 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 34***

Sonal, a mathematician, defines a number as 'connected by 6' if it is divisible by 6, or if the sum of its digits is 6, or if 6 is one of the digits of the number. Other numbers are all 'not connected with 6'. As per this definition, the number of integers, from 1 to 60 (both inclusive) which are not connected with 6 is

A) 18 B) 43 C) 22 D) 42

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 35***

How many trailing zeros will be there after the rightmost non-zero digit in the value of 25!?

A) 28 B) 8 C) 6 D ) 5

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 36***

The digit in the unit position of the integer  1! + 2! + 3! + …+99! is

A) 3 B) 0 C) 1 D) 7

***Question No. : 37***

The right most non – zero digit of the number 30 2720 is

A) 1 B) 3 C) 7 D) 9

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 38***

What is the maximum power of 5 in (11 × 22 × 33 × 44 × 55 × ---- × 5151)?

A) 350 B) 380 C) 275 D) 348

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 39***

Find the greatest power of 8 in 1 × 2 × 3 ×4 × 5………….24 × 25 × 26

A) 5 B) 7 C) 10 D) 23

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 40***

The maximum power of 24 that divides 240! is *x*. What is the number of consecutive zeroes at the end of *x*!?

A) 58 B) 38 C) 18 D) 78

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 41***

A number on being divided by 8 and 9 successively leaves the remainders 5 and 7 respectively. Find the remainder when the same number is divided by 72.

A) 61 B) 54 C) 71 D) 67

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 42***

Each bottle used to pack  Vitamin tablet contains *aa* tablets. Here *a* stands for a digit between 1 to 9. It was found that when one day’s production of *aaaa* tablets was packed into bottles, there were no tablets which were left unpacked. How many bottles are required for packing 1 day of production?

A) 11 B) 111 C) 101 D) More than 1 unique answer

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 43***

A person starts multiplying consecutive positive integers from 20. How many numbers should he multiply before the will have result that will end with 3 zeroes?

A) 11 B) 10 C) 6 D) 5

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 44***

What is the smallest positive value of *n* so that 20! divided by 6*n* is not an integer?

A) 7 B) 8 C) 9 D) 10

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 45***

A number 1223334444555556… 9 is added to 9887776666555554….1. What will be the sum of digits of this addition?

A) 46 B) 72 C) 99 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 46***

What is the remainder when 12510 + 381 + 726 is divided by 10?

A) 2 B) 5 C) 9 D) 7

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 47***

If (3*a* – 2)! has 18 trailing zeroes, how many integral values of *a* are possible?

A) 1 B) 2 C) 5 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 48***

Which one of the following will completely divide 571 + 572 + 573 ?

A) 150 B) 160 C) 155 D) 30

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 49***

What is the greatest power of 5 which can divide (80! + 81!) exactly ?

A) 16 B) 20 C) 19 D) None of these

***DIRECTIONS for the question:*** *Solve the following question and mark the best possible option.*

***Question No. : 50***

Anand and Shakti had equal sum of money. When Anand had spent half of his money and Shakti has spend two third of his, Anand had Rs.25 more than Shakti. What is the initial sum of money Shakti had?

A) Rs.100 B) Rs.200 C) Rs.150 D) Rs.175

ANSWER KEY

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | A | 11 | D | 21 | C | 31 | D | 41 | A |
| 2 | D | 12 | B | 22 | B | 32 | A | 42 | C |
| 3 | D | 13 | A | 23 | D | 33 | B | 43 | C |
| 4 | D | 14 | A | 24 | D | 34 | B | 44 | C |
| 5 | C | 15 | C | 25 | B | 35 | C | 45 | D |
| 6 | A | 16 | B | 26 | B | 36 | A | 46 | D |
| 7 | D | 17 | A | 27 | B | 37 | A | 47 | D |
| 8 | A | 18 | A or B | 28 | C | 38 | A | 48 | C |
| 9 | D | 19 | D | 29 | D | 39 | B | 49 | C |
| 10 | D | 20 | C | 30 | D | 40 | C | 50 | C |