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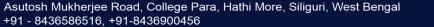
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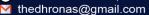
## Quantitative Aptitude - Number System

**English** 

- Q:1 What should be added to a number 700 to make it divisible by 79?
- **1.** 15
- **2.** 19
- **3.** 17
- **4**. 11
- Q:2 If LCM and HCF of two numbers are 84 and 6. Find the product of two numbers.
- **1.** 304
- **2.** 584
- **3.** 486
- **4.** 504
- Q:3 What is the greatest 5 digit number divisible by 15, 25 and 40?
- **1.** 99600
- 2.99680
- **3.** 99760
- **4.** 99740
- Q:4 If the HCF of two numbers 112 and 420 is 28. Find their LCM.
- **1.** 1680
- **2.** 1400
- **3.** 1260
- **4.** 1740
- **Q:5** Find the remainder when  $(1723^{888} + 1235^{222})$ divided by 4.
- **1**. 1
- **2**. 2
- **3**. 3
- **4**. 4
- Q:6 What is the number of even factors of 3168?
- **1.** 10
- **2.** 20
- **3.** 30
- **4.** 32
- Q:7 Find the LCM of the following fractions.
- 8/5, 15/7, 24/9, 10/3
- **1.** 120
- **2.** 60

- **3.** 90
- **4.** 45
- Q:8 Three bulbs of a street light glow 12, 18, 28 times in a minute. How many times will they glow together in one hour?
- **1.** 360
- **2.** 120
- **3.** 130
- **4.** 150
- Q:9 There are three sticks A, B, and C of lengths 81cm, 108cm, and 135cm respectively. Find the greatest equal size of stick to be cut such that no part is left.
- **1.** 3
- **2.** 18
- **3**. 27
- **4**. 9
- Q:10 Find the largest 5 digit number which is exactly divisible by 12,15,18, 27.
- 1.90000
- 2.99999
- 3.99010
- 4.99900





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## **Quantitative Aptitude - Number System**

**English** 

## Answer Key

<b>1.</b> (4)	<b>2</b> . (4)	<b>3.</b> (1)	<b>4</b> . (1)	<b>5</b> . (2)	
<b>6.</b> (3)	7. (1)	8. (2)	9. (3)	10. (4)	

## Answers and Solutions

Q:1 The correct answer is Option 4 i.e. 11. When 700 is divided by 79, it gives the remainder 68 : Required number to add = 79 - 68 = 11

Q:2 The correct answer is Option 4 i.e. 504. Given, HCF = 6 & LCM = 84 We know that, First number × Second number = HCF × LCM Now. First number × Second number = 84 × 6 = 504

Q:3 The correct answer is option 1 i.e. 99600. Greatest 5 digit number is 99999 LCM of 15, 25 and 40 = 600 When 99999 is divided by 600 we have a remainder = 399 Required number = 99999 - 399 = 99600

Q:4 The correct answer is option 1 i.e. 1680 We know that, HCF × LCM = product of numbers.  $28 \times LCM = 112 \times 420$ LCM = 1680

Q:5 The correct answer is Option 2 i.e 2 Divide by 4 until a number less than 4 is left  $(1723^{888} + 1235^{222})/4 = (3^{888} + 3^{222})/4 = {(3^2)^{444}} +$  $(3^2)^{111}$ }/4 =  $(9^{444} + 9^{111})$ /4 = (1 + 1)/4 = 2/4 ∴ Remainder when divided by 4 = 2

Q:6 The correct answer is Option 3 i.e 30  $3168 = 3^2 \times 11 \times 2^5$  [::  $32 = 2^5$ ] Total number of factors of N =  $a^p b^q c^r \dots = (p + 1) (q + 1)$ Total number of factors of 3168 =  $(2 + 1) \times (1 + 1) \times (5 + 1) \times (1 + 1) \times$ 1) ⇒ 36 Odd factors = Total factors  $3^2 \times 11$  [Without even factor  $\Rightarrow$  (2 + 1) × (1 + 1)

 $\Rightarrow 6$ Total number of even factors = 36 - 6 = 30

Q:7 The correct answer is option 1 i.e. 120. The resultant LCM of the fractions will be the division of LCM of all numerators to the HCF of all denominators LCM of 8, 15, 24, 10 = 120 HCF of 5, 7, 9, 3 = 1So, resultant LCM = 120/1 = 120

Q:8 The correct answer is Option 2 i.e 120 Since these bulb glows 12, 18 and 28 times in one minute So they will glow 1 time in 1/12, 1/18, 1/28 minute. So they will glow together in;

LCM of 1/12 , 1/18 , 1/28 (LCM of fraction = lcm of numerator / hcf of denominator) = 1/2 minute So in one minute they will glow 2 time so in one hour they will glow together 120 times

Q:9 The correct answer is option 3 i.e. 27. H.C.F of the length of sticks will be the greatest part of the given length that can be cut. H.C.F of 81, 108, and 135 = 27

Q:10 The correct answer is option 4 i.e. 99900 LCM of 12, 15, 18, 27 = 540 Largest number of 5 digits = 99999 On dividing (99999) by 540 ⇒ Remainder = 99 Required number = 99999 - 99 = 99900

So, the greatest part of the stick will be 27.









