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 $(1723^{888} + 1235^{222})$ is 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

Answer Key

1. (4)	2. (4)	3. (1)	4. (1)	5. (2)
6. (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 × LCM = 112 × 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**
$3168 = 3^2 × 11 × 2^5$ [∵ $32 = 2^5$]
Total number of factors of N = $a^p\, b^q\, c^r$ …. = (p + 1) (q + 1) (r + 1) ….
Total number of factors of 3168 = (2 + 1) × (1 + 1) × (5 + 1)
⇒ 36
Odd factors = Total factors $3^2 × 11$ [Without even factor 2]
⇒ (2 + 1) × (1 + 1)

⇒ 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 = 1
So, 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
So, the greatest part of the stick will be 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

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