Test – Factor Class V CBSE

I. Objective Questions: **[1x19=19]**

Q1. The number which is neither prime nor composite is_____.

(A) 0 (B) 1 (C) 2 (D) 5

Q2. Which of the following statement is true

A. Sum of positive number and negative number is zero.

B. Sum of two odd numbers is always odd number

C. Sum of two even numbers is always even number

D. More than one of the above

E. None of the above

Q3. The sum of all those prime numbers which are less than 31 is

A. 129

B. 139

C. 132

D. 137

Q4. How many prime numbers are there between 30 to 50

A. 4

B. 3

C. 6

D. 5

Q5. Consider the following statements – True/False

A. All the prime numbers are odd numbers

B. There are only five single digit prime numbers

C. There are infinitely many prime numbers

D. A prime number has only two factors

Which of the above statement are true.

a. Option A & D

b. Option b, c and d

c. Option C & D

d. Option B & D

Q6. A two-digit number, 9A, is a prime number. Find A

A. 3

B. 1

C. 9

D. 7

Q7. Statement 1: 1 is not prime number

Statement 2: 1 is not composite number

Which of the above statements is/are true?

1. Both A & B are true

2. Both A & B are not true

3. A is true but B is not true

4. A is not True, B is true

Q8. Which of the following group of number has least prime numbers?

A. From 20 to 40

B. From 30 to 50

C. From 40 to 60

D. From 60 to 80

Q9. Fill in the blank:

(i) 435 = 3 × ___ × ____.

(ii) 378 = 2 × __ × 3 × ___ × ____.

(iii) 1125 = 3__ × 5__.

(iv) Factors of 63 = _____. b) 63 is a _____ number.

Q10. State 'true' or 'false' for the following:

(i) 177 is a prime number

(ii) 1 is a composite number

(iii) The prime factorisation of 252 is $2^2 \times 3^3 \times 7$.

(iv) 5 × 33 is the prime factorisation of 165.

Q11. State True or False

a) 2 is the only even prime number.

b) 0 and 1 are neither prime nor composite numbers.

c) No prime number greater than 5 ends with 5.

II. Short Answer Questions: (Any 6 questions only) **[3 x 6 = 18]**

Q1. Explain why 7 × 11 × 13 + 13 and 7 × 6 × 5 × 4 × 3 × 2 × 1 + 5 are composite numbers.

Q2. Find the product of first 5 composite numbers.

Q3. In a month of 30 days, which dates are prime numbers and which are composite numbers excluding 1?

Q4. Solve the following riddle. I am a number between 50 and 100. My ones digit is two less than my tens digit. I am a prime number. What number am I?

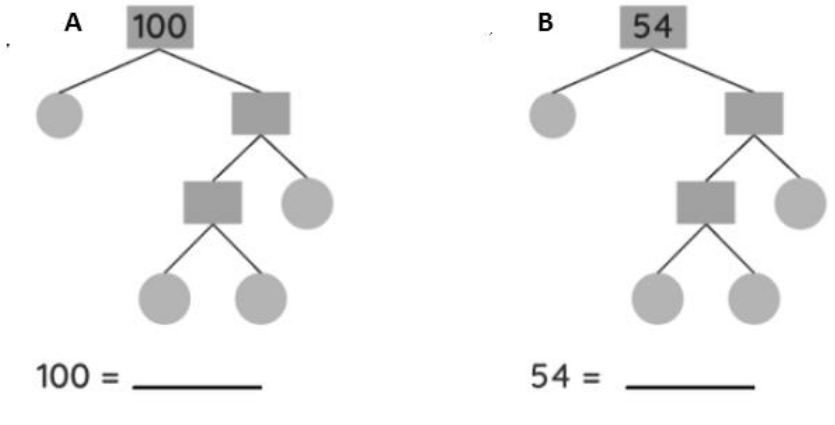
Q5. In a leap year, find out how many months have a prime number of days.

Q6. What is the sum of the smallest prime number and smallest composite number?

Q7. Write the first 3 prime numbers after 20.

Q8. Is the number of blocks shown in the image prime or composite?

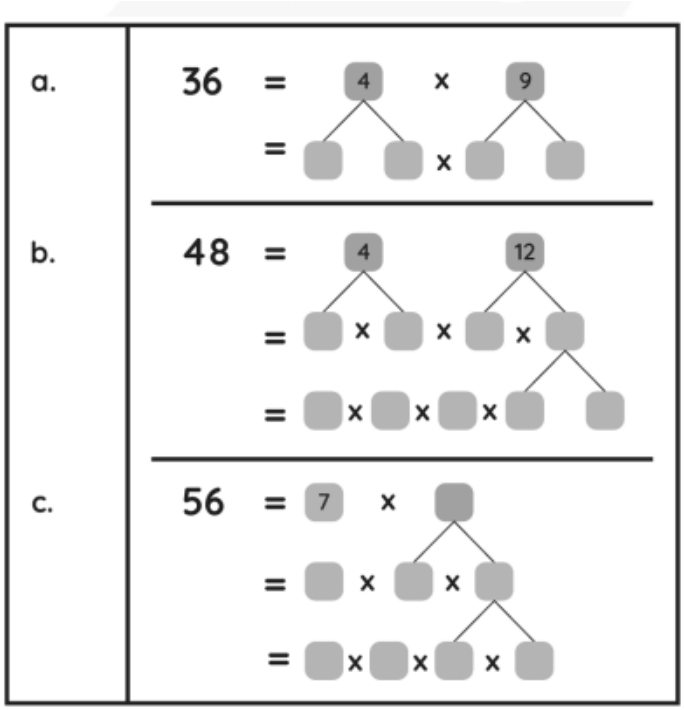
Q9. Find the prime factors of the numbers using the factor tree. Write the prime factors in the circles.



Q10. I am a product of three different prime numbers. My largest prime factor is 13. I am between 185 and 200. Who am I?

Q11. Jamie says to Rachel that the prime factorization of 72 is 2 ×2 × 2 × 3 × 7. Is he right? If no, where is he mistaken?

Q12. Use the factor tree to find the prime factors of the given numbers



Q13. Find the HCF and the LCM of the following numbers using the common division method. (a) 48, 72 and 54.

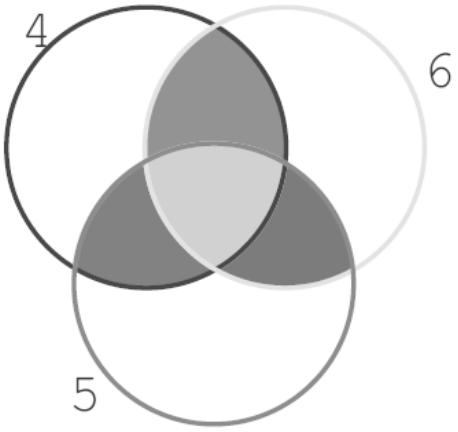
III. Word Problems: (Any 6 questions only) [4 x 6 = 24]

Q1. Answer the following questions.

(a) Three bells ring at intervals of 3, 6 and 9 seconds respectively. If they ring together now, after how many seconds will all the bells ring together again?

(b) Vinay is buying nuts and bolts at a hardware store. The store sells nuts in packs of 20 and bolts in packs of 5. If Vinay wishes to buy the same number of nuts and bolts, what is the smallest number of nuts he can buy?

Q2. Think of a number putting the multiples of 4, 6 and 5 in the circles.



Q3. Find the smallest number which, on being added 23 to it, is exactly divisible by 32, 36, 48 and 96.

Q4. Find a multiple of 70 which is between 200 and 600 which has odd digits at tens and hundreds place.

Q5. Samantha has two pieces of cloth. One piece is 72 inches wide and the other piece is 90 inches wide. She wants to cut both pieces into strips of equal width that are as wide as possible. How wide should she cut the strips?

Q6. Find the least number of saplings which can be planted in 5, 6, or 9 rows equally.

Q7. An orchard has 48 apple trees, 60 mango trees and 96 banana trees. These have to be arranged in rows such that each row has the same number of trees and all are of the same type. Find the minimum number of such rows that can be formed.

Q8. 12 oranges, 16 apples, and 32 pears are equally packed in cartons so that no fruit is left. What is the largest possible number of cartons needed?

Q9. The local bus service has 2 lines of buses that start together at 8 a.m. Buses on line A leave after every 20 minutes while Buses on line B leave after every 15 minutes. In a day, how many times do buses on both line A and B leave together between 7 a.m. and 10 p.m.?

Q10. Sara goes to the shopping mall every 6^{th} day. Andy goes to the same shopping mall every 7^{th} day. How many times will they meet in the mall in the month of December and January if we start counting from 1^{st} December?

Q11. Rita goes to a shopping mall every 64 days. Archana goes to the same shopping mall every 72 days. After how many days will they meet each other in the mall?

Q12. The length, breadth, and height of a room are 825 cm, 675 cm and 450 cm respectively. The longest tape which can measure the three dimensions of the room exactly.

Q13. The traffic lights at three different road crossings change after every 48 seconds, 72 seconds and 108 seconds respectively. If they change simultaneously at 7 a.m., at what time will they change simultaneously again?

Q14. Three tankers contain 403 litres, 434 litres and 465 litres of diesel respectively. Find the maximum capacity of a container that can measure the diesel of the three containers exact number of times.