Playing with Numbers

Question 1.
The LCM of 12 and 16 is:
(a) 32
(b) 60
(c) 48
(d) none of these

Answer: (c) 48
Explanation: 48

2	12, 16
2	6, 8
2	3, 4
2	3, 2
3	3, 1
	1, 1

LCM = 2 × 2 × 2 × 2 × 3 = 48

Question 2.
What are the numbers which have more than two factors called?
(a) Even numbers
(b) Prime numbers
(c) Composite numbers
(d) Odd numbers

Answer: (c) Composite numbers

Question 3.
The sum of two odd and one even numbers is

(a) Even
(b) Prime
(c) Composite
(d) Odd

Answer: (a) Even

Question 4.
The number which is divisible by 5 is:
(a) 422
(b) 423
(c) 424
(d) 425

Answer: (d) 425
Explanation: 425, a number is divisible by 5 if its unit's digit is either 0 or 5.

Question 5.
The HCF of 12 and 40 is:
(a) 3
(b) 4
(c) 5
(d) 6

Answer: (b) 4
Explanation: 4,
$2 \times 2 \times 3$
HCF = $2 \times 2 = 4$
$40 = 2 \times 2 \times 2 \times 5$

Question 6.
Every _____ of a number is greater than or equal to that number.
(a) factor
(b) number
(c) multiple
(d) none to these

Answer: (c) multiple

Question 7.
What is the H.C.F. of two co-prime numbers?
(a) 1
(b) 0
(c) 2
(d) 4

Answer: (a) 1

Question 8.
The LCM of 12, 15, 45 is:
(a) 170
(b) 180
(c) 190
(d) 200

Answer: (b) 180
Explanation: 180

2	12, 15, 45
2	6, 15, 45
3	3, 15, 45
3	1, 5, 15
5	1, 5, 5
	1, 1, 1

LCM = 2 × 2 × 3 × 3 × 5 = 180

Question 9.
Find the HCF of 27, 63.
(a) 2
(b) 6
(c) 3
(d) 9

Answer: (d) 9

Question 10.
_____ is the smallest prime number which is even.
(a) 2

(b) 4
(c) 3
(d) 1

Answer: (a) 2

Question 11.
If a number is divisible by 10, then which of the following can be its one's digit?
(a) 2
(b) 3
(c) 4
(d) 0

Answer: (d) 0

Question 12.
The value of $10 + 40 \div 8 \times 2 - 9$ is:
(a) 9
(b) 10
(c) 11
(d) 12

Answer: (c) 11
Explanation: $10 + 40 \div 8 \times 2 - 9 = 10 + 5 \times 2 - 9 = 10 + 10 - 9 = 20 - 9 = 11$ (BODMAS Rule)

Question 13.
The number which is divisible by 3 is:
(a) 135
(b) 136
(c) 137
(d) 139

Answer: (a) 135
Explanation: 135, 1 + 3 + 5 = 9 which is divisible by 3 therefore no. is divisible.

Question 14.
The only prime number which is also even is
(a) 6
(b) 1

(c) 2
(d) 4

Answer: (c) 2

Question 15.
Which of the following is the L.C.M. of 36 and 72?
(a) 36
(b) 72
(c) 108
(d) 2

Answer: (b) 72

Question 16.
A prime number is a number which:
(a) is divisible by 2
(b) is not divisible by 2
(c) has no factors
(d) has exactly two factors

Answer: (d) has exactly two factors
Explanation: Exactly two factors are 1 and the number itself.

Question 17.
Which of them is composite number?
(a) 6
(b) 5
(c) 7
(d) 3

Answer: (a) 6

Question 18.
Which of them is prime number?
(a) 3
(b) 6
(c) 9
(d) 8

Answer: (a) 3

Question 19.
The value of $18 – 3 \times 4 + 1$ is:
(a) 61
(b) 75
(c) 7
(d) none of these

Answer: (c) 7
Explanation: 7, $18 – 3 \times 4 + 1 = 18 – 12 + 1 = 19 – 12 = 07$ (BODMAS Rule)

Question 20.
Prime factors of 45 are:
(a) 5, 9
(b) 3, 15
(c) 3, 3, 5
(d) none of these

Answer: (c) 3, 3, 5
Explanation: $45 = 3 \times 3 \times 5$.

Question 21.
Which of the following is the prime factorisation of 140?
(a) $2 \times 2 \times 7$
(b) $2 \times 2 \times 5$
(c) $2 \times 2 \times 5 \times 7$
(d) $2 \times 2 \times 5 \times 7 \times 3$

Answer: (c) $2 \times 2 \times 5 \times 7$

Question 22.
Which is the number that is neither prime nor composite?
(a) 0
(b) 1
(c) 2
(d) 5

Answer: (b) 1

Question 23.
The common factors of 24 and 40 are:
(a) 1, 3, 4, 8
(b) 1, 2, 4, 8
(c) 1, 4, 5, 9
(d) none of these

Answer: (b) 1, 2, 4, 8
Explanation: 1, 2, 4, 8. 24 and 40 are both divisible by 1, 2, 4, 8.

Question 24.
Value of $30 + 14 \div 2$ is:
(a) 22
(b) 29
(c) 37
(d) none of these

Answer: (c) 37
Explanation: 37, $30 + 14 \div 2 = 30 + 7 = 37$ (By BODMAS Rule)

Question 25.
901153 is divisible by ___.
(a) 3
(b) 5
(c) 11
(d) 7

Answer: (c) 11

Question 26.
If a number is divisible by 2 and 3 both then is divisible by
(a) 3
(b) 6
(c) 5
(d) 7

Answer: (b) 6

Question 27.
Which of the following numbers is a prime number?

(a) 10
(b) 11
(c) 12
(d) 15

Answer: (b) 11
Explanation: 11 has factors 1 and 11 only.

Question 28.
The smallest prime number is:
(a) 1
(b) 2
(c) 3
(d) none of these

Answer: (b) 2
Explanation: Prime numbers start from the number 2.

Question 29.
Which of these numbers is a factor of every number?
(a) 0
(b) 1
(c) 2
(d) 4

Answer: (b) 1

Question 30.
Number of factors of a given number are _____.
(a) finite
(b) infinite
(c) 3
(d) 2

Answer: (a) finite

Question 31.
What is the H.C.F. of 120, 144 and 216?
(a) 38
(b) 24

(c) 120
(d) 144

Answer: (b) 24

Question 32.
Every prime number except _____ is odd.
(a) 5
(b) 7
(c) 2
(d) 3

Answer: (c) 2

Question 33.
What are the numbers which are multiples of 2 called?
(a) Odd numbers
(b) Even numbers
(c) Prime numbers
(d) Composite numbers

Answer: (b) Even numbers

Question 34.
The number which is divisible by 2 is:
(a) 135
(b) 136
(c) 137
(d) 139

Answer: (b) 136
Explanation: 136 is an even no. and every even no. is divisible by 2.

Question 35.
The LCM of 8 and 6 is:
(a) 22
(b) 24
(c) 26
(d) 28

Answer: (b) 24
Explanation: 4

2	8, 6
2	4, 3
2	2, 3
3	1, 3
	1, 1

LCM = 2 × 2 × 2 × 3 = 24

Question 36.
The largest three digit number which is exactly divisible by 3 is:
(a) 999
(b) 996
(c) 992
(d) none of these

Answer: (a) 999
Explanation: 999, 9 + 9 + 9 = 27 which is divisible by 3.

Question 37.
_____ is the factor of 68.
(a) 6
(b) 5
(c) 3
(d) 17

Answer: (d) 17

Question 38.
Choose the maximum consecutive numbers less than 100 so that there is no prime number between them.
(a) 6
(b) 5
(c) 7
(d) 8

Answer: (c) 7

Fill in the blanks:

1. First 5 multiples of 5 are …….

Answer: 5, 10, 15, 20, 25

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2. Is 39 a prime number? …….

Answer: yes

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3. All the factors of 20 are ……

Answer: 1, 2, 4, 5, 10, 20

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4. First three multiples of 16 are …….

Answer: 16, 32, 48

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5. 146 …….. 8 is divisible by 3.

Answer: 2

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6. In each of the following, fill in the blanks with the smallest digit to make it divisible by 3.
(i) 75 …….. 3
(ii) 135 ……. 8
(iii) 2375 ……
(iv) 2159 ……

Answer: (i) 3, (ii) 1, (iii) 1, (iv) 1

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7. In each of the following, fill in the blanks with the smallest digit to make it divisible by 11.
(i) 1083 …….. 2
(ii) 620 …….. 53
(iii) 86 …….. 41

Answer: (i) 7, (ii) 6, (iii) 1

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8. LCM × HCF = …….. × ……

Answer: first number × second number

9. The smallest prime number is ……..

Answer: 2