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Class: VI
Subject: Mathematics
Topic: ASK1506SA1
No. of Questions: 30
Duration: 90 Min
Maximum Marks: 90

1) Which of the following numbers is equal to 1 billion?

(A) 10 lakh
(B) 1 crore
(C) 10 crore
(D) 100 crore

Sol. (A)

1 billion = 10 lakh

2) The predecessor of 1 in natural numbers is?

(A) 0
(B) 2
(C) -1
(D) None of these

Sol.(D)

We know that the smallest natural number is 1.

Hence, its predecessor does not exist.

3) The HCF of an even number and an odd number is?

(A) 1
(B) 2
(C) 0
(D) Non-existent

SOL. (D)

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Example: HCF of 8 and 21 is 1

HCF of 6 and 9 is 3

HCF of 9 and 36 is 9

So there is no fixed number that can be the HCF of an even number and an odd number

4) An angle of measure 180° is called?

(A) A zero angle
(B) A right angle
(C) A straight angle
(D) A reflex angle

SOL. (C)

An angle of measure180° is called a Straight angle.

5) Total number of parts of a triangle is?

(A) 3
(B) 6
(C) 9
(D) 1

SOL. (B)

Three sides and three angles

∴ total number of parts of a triangle is 6

6) Find the value of −17 −(−13)?

(A) 10
(B) −10
(C) −4
(D) 4

Sol.(C)

We have,

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$= -17 - (-13)$

$= -17 + 13$ [∴ subtraction of -13 from -17 means adding 13 to -17]

$= -(17 - 13)$

$= -4$

7) The difference between the place value and face value of 8 in 658742?

(A) 7982
(B) 4201
(C) 7992
(D) 6931

Sol.(C)

The place value of 8 in 658742 = 8 thousands = 8000

The face value of 8 = 8

∴ Difference = 8000 – 8 = 7992

8) The product of the predecessor and successor of an odd natural number is always divisible by?

(A) 6
(B) 2
(C) 4
(D) 8

Sol.(D)

The predecessor of an odd number is an even number

The successor of an odd number is also an even number

These two even numbers are two consecutive even numbers, and the product of two

Consecutive even numbers is always by 8

9) Which of the following numbers is divisible by 6?

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(A) 7908432
(B) 68719402
(C) 45981014
(D) 7084238

SOL.(A)

A number divisible by 6 must also be divisible by 3 and 2 as 6 is a multiple of 3 and 2

In 7908432, the sum of digits = 7 + 9 + 0 + 8 + 4 + 3 + 2 = 33

Since 33 is multiple of 3, this number is divisible by 3

Also, since the last digits is 2, it is also divisible by 6

Therefore, 7908432 is divisible by 6

10) A bicycle wheel makes four and a half turns. Find the number of right angles through which it turns.

(A) 12
(B) 18
(C) 16
(D) 14

Sol (B)

In one turn, the wheel of a bicycle covers 360°

If we express 360° in right angles, we get

$\frac{360°}{90°}$ = 4 right angles

Thus, in four and a half turns, the wheel will turn by (4 × 4.5) = 18 right angles

11) The total number of diameters of a circle is?

(A) 1
(B) 2
(C) 4
(D) Uncountable number

Sol (D)

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The number of points in a circle is infinite. So, the number of diametrically opposite points in a circle is also infinite. Hence, the number of diameters of a circle is uncountable.

12) In addition and subtraction of the integers the sign of answer depends upon?

(A) greater numerical value
(B) their difference
(C) smaller number
(D) their sum

Sol.(A)

In addition and subtraction of the integers the sign of answer depends upon greater numerical value

13) The difference between the greatest and the smallest numbers which when rounded off a number to the nearest tens as 540?

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

Sol. (B)

544 is the greatest number that when rounded off to the nearest tens will become 540

534 is the least number that when rounded off to the nearest tens will become 540

$\therefore$ Difference = 544 – 535
= 9

14) Find the number which when divided by 45 gives a quotient 11 and remainder 19

(A) 514
(B) 541
(C) 524
(D) 614

Sol (A)

We have,

Divisor = 45, Quotient = 11 and remainder 19

By division algorithm we have,

Dividend = Divisor × Quotient + Remainder

= 45 × 11 + 19

= 495 + 19

Hence, the required number = 514

15) If the HCF of the two numbers is 16 and their product is 3072, then their LCM is?

(A) 182
(B) 192
(C) 12
(D) None of these

Sol.(B)

We know:

HCF × LCM = Product of the two numbers

∵ 16 × LCM = 3072

∴ LCM = $\frac{3072}{16}$

LCM = 192

16) An _____ is made up of two rays starting from a common end point.

(A) line
(B) ray
(C) line segment
(D) angle

Sol.(D)

An angle is formed by two rays with a common endpoint

17) The number of faces of a triangular pyramid is?

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(A) 3
(B) 4
(C) 6
(D) 8

Sol(B)

The number of faces of a triangular pyramid is 4

18) What integers or number should be added to –5 to get 4?

(A) 1
(B) −1
(C) 9
(D) −9

Sol.(C)

Let the integer be x

Then, −5 + x = 4

X = 4 + 5

X = 9

∴ 9 should be added to −5 to get 4

19) The number of 3 digit numbers formed by using digits 3, 5, 9, taking each digit exactly once, is?

(A) 3
(B) 4
(C) 5
(D) 6

Sol.(D)

The numbers are 359, 395, 539, 593, 935, 953

20) The digits 6 and 9 of the number 36490 are interchanged. Find the difference between the original number and the new number.

(A) 2270

(B) 2790
(C) 2970
(D) 3460

Sol. (C)

The original number = 39460

New number = 36490

⇒ Difference = original number –new number

= 39460 – 36490

= 2970

21) What least value should be given to ∗ so that the number 915∗26 is divisible by 9?

(A) 1
(B) 4
(C) 2
(D) 6

Sol.(B)

A number is divisible by 9 if the sum of its digits is a multiple of 9

Sum of these given digits = 9 + 1 + 5 + 2 + 6 = 23

We know that multiple of 9 greater than 23 is 27

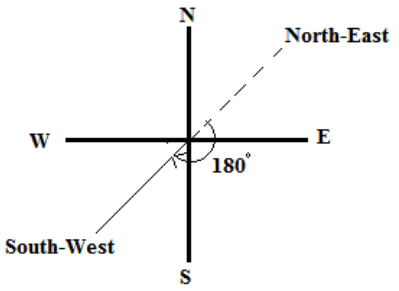
∴ 27 – 23 = 4

Hence, the smallest required digit is 4

22) Sam is rowing a boat due to north-east. In which direction will she be rowing if she turns it through a straight angle?

(A) South
(B) South-East
(C) East
(D) South-West

Sol.(D)



If Sam turns through a straight angle or 180°, She will be rowing along the south-west direction.

23) What fraction of a clockwise revolution does the hour hand of a clock turn through, when it goes from 3 to 9?

(A) 1
(B) $\frac{1}{3}$
(C) $\frac{1}{4}$
(D) $\frac{1}{2}$

Sol.(D)

Makes $\frac{1}{2}$ of a revolution or 2 right angles.

24) 39 –50 is?

(A) Not possible
(B) −89
(C) −11
(D) 10

Sol.(C)

$-50 + 39 = -11$

25) The difference between the largest three digit number and the largest three digit number with distinct digits is?

(A) 10
(B) 0

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(C) 12
(D) 13

Sol.(C)

The largest three-digit number = 999

The largest three-digit number with distinct digits = 987

∴ Difference = 999 – 987

= 12

26) Multiply 5217 by 325

(A) 1699525
(B) 1654255
(C) 1695525
(D) 1965445

Sol.(C)

We have,

5217×325

$= (5000 + 200 + 10 + 7) \times 325$

$= 5000 \times 325 + 200 \times 325 + 10 \times 325 + 7 \times 325$ [using distributivity]

$= 1625000 + 65000 + 3250 + 2275$

$= 1695525$

27) The least number divisible by 15, 20, 24, 32, and 36 is?

(A) 1440
(B) 1660
(C) 2880
(D) None of these

Sol.(A)

The least number divisible by 15, 20, 24, 32, and 36 can be found by taking LCM

2	15	20	24	32	36
2	15	10	12	16	18
2	15	5	6	8	9
2	15	5	3	4	9
2	15	5	3	2	9
3	15	5	3	1	9
3	5	5	1	1	3
5	5	5	1	1	1
	1	1	1	1	1

∴ LCM of 15, 20, 24, 32, and 36 = 2 × 2 × 2 × 2 × 2 × 3 × 3 × 5 = 1440

Hence, 1440 is the least number that divisible by 15, 20, 24, 32, and 36.

28) An isosceles trapezium has?

(A) All sides equal
(B) Parallel sides equal
(C) Non-parallel sides equal
(D) Any two equal sides

Sol.(C)

Non-parallel sides are equal.

29) Number of vertices of a cuboid is?

(A) 4
(B) 6
(C) 8
(D) 10

Sol.(C)

A cuboid has 8 vertices.

30) Sum of a negative and a positive integer is?

(A) Always negative
(B) either positive or negative
(C) always positive
(D) Zero

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Sol.(B)

Sum of a negative integer and a positive integer is either positive or negative depend upon the value of the number.