Maths MCQ's

ALGEBRA & NUMBER SYSTEM

1. Solve for xx: 2x+3=112x + 3 = 11.
a) 3
b) 4
c) 5
d) 6

2. The value of (23)2(2^3)^2 is:
a) 8
b) 16
c) 64
d) 256

3. If x+y=10x + y = 10 and xy=21xy = 21, then x2+y2=?x^2 + y^2 = ?
a) 58
b) 100
c) 37
d) 79

4. What is the remainder when 5215^{21} is divided by 6?
a) 1
b) 3
c) 5
d) 0

5. If x2−5x+6=0x^2 - 5x + 6 = 0, then one value of xx is:
a) 2
b) 3
c) 4
d) Both a and b

Answers :

1. b) 4

2. c) 64

3. a) 58 (Since x2+y2=(x+y)2−2xy=100−42=58x^2 + y^2 = (x + y)^2 - 2xy = 100 - 42 = 58)

4. a) 1

5. d) Both a and b (2 & 3)

GEOMETRY & MENSURATION

6. Area of an equilateral triangle with side 6 cm is:

a) $9\sqrt{3}$ cm²
b) $6\sqrt{3}$ cm²
c) $12\sqrt{3}$ cm²
d) 18 cm²

7. Diagonal of a square with side 5 cm is:

a) 5 cm
b) $5\sqrt{2}$ cm
c) 10 cm
d) 6 cm

8. Perimeter of a circle with radius 7 cm is:

a) 14π cm
b) 21 cm
c) 22 cm
d) 44 cm

9. Volume of a cube with side 4 cm is:

a) 64 cm³
b) 16 cm³
c) 32 cm³
d) 48 cm³

10. Area of a rectangle with length 8 cm and breadth 3 cm is:
a) 24 cm²
b) 22 cm²
c) 11 cm²
d) 18 cm²

Answers :

6. a) 9√3 cm²

7. b) 5√2 cm

8. a) 14π cm ≈ 44 cm

9. a) 64 cm³

10. a) 24 cm²

TRIGONOMETRY

11. If sinθ=1\sin \theta = 1, θ\theta is:
a) 0°
b) 30°
c) 45°
d) 90°

12. Value of cos60∘\cos 60^\circ is:
a) 0
b) 0.5
c) 1
d) √3/2

13. If tanA=1\tan A = 1, value of AA is:
a) 0°
b) 30°
c) 45°
d) 60°

14. Value of $\sin^2 30^\circ + \cos^2 30^\circ$ is:
a) 0.5
b) 1
c) 0.75
d) 1.5

15. Value of $\sin 90^\circ - \cos 0^\circ$ is:
a) 0
b) 1
c) -1
d) 2

Answers :

11. d) 90°

12. b) 0.5

13. c) 45°

14. c) 45°

15. a) 0

ARITHMETIC & PERCENTAGES

16. 25% of 200 is:
a) 25
b) 50
c) 75
d) 100

17. A number is increased by 10% and then decreased by 10%. Net change is:
a) 0%
b) +1%
c) -1%
d) +2%

18. If 60% of a number is 90, the number is:

a) 120
b) 150
c) 180
d) 200

19. Profit on selling item for ₹240 is 20%. Cost price is:

a) ₹180
b) ₹190
c) ₹200
d) ₹220

20. Simple interest on ₹1000 at 5% for 2 years is:

a) ₹50
b) ₹75
c) ₹100
d) ₹150

Answers :

16. b) 50

17. c) -1% (net loss = 0.1 × 0.1 = 1%)

18. b) 150

19. c) ₹200

20. a) ₹1000 × 5% × 2 = ₹100

REASONING & PUZZLES

21. What comes next? 3, 6, 12, 24, __

a) 36
b) 42
c) 48
d) 50

22. A man walks 10 km north, then 10 km east. Distance from starting point?

a) 10 km
b) 20 km
c) 10√2 km
d) √200 km

23. Smallest 3-digit number divisible by 17 is:

a) 102
b) 103
c) 104
d) 105

24. Sum of first 15 natural numbers is:

a) 120
b) 105
c) 115
d) 110

25. In a certain code, if DOG = 26, then CAT = ?

a) 24
b) 25
c) 23
d) 22

Answers :

21. c) 48 (pattern ×2 each time)

22. d) √200 km ≈ 14.14 km

23. a) 102

24. b) 120 (n(n+1)/2, n=15)

25. a) 24

MIXED CONCEPTS

26. Number of sides of a polygon if sum of angles is 1260°:

a) 9
b) 10
c) 8
d) 7

27. Median of 5, 8, 10, 12, 15 is:

a) 8
b) 10
c) 12
d) 15

28. Mean of 4, 8, 12, 16 is:

a) 10
b) 12
c) 8
d) 14

29. Surface area of cube with side 3 cm:

a) 27 cm^2
b) 54 cm^2
c) 36 cm^2
d) 18 cm^2

30. If 5 workers finish work in 20 days, 10 workers will finish it in:

a) 5 days
b) 10 days
c) 20 days
d) 25 days

Answers :

26. a) 9 sides (Sum = $(n-2)\times180° \Rightarrow 1260 = (n-2)\times180 \Rightarrow n = 9$)

27. b) 10 (middle value)

28. a) 10 ((4+8+12+16)/4 = 10)

29. b) 54 cm^2 ($6\times side^2 = 6\times9 = 54$)

30. b) 10 days (work is inversely proportional to workers