

I. Choose the best answer from the following options: (14 x 1 = 14)

1. The standard form of the sum $\frac{3}{4} + \frac{5}{6} + \left(\frac{-7}{12}\right)$ is _____
 (A) 1 (B) $\frac{-1}{2}$ (C) $\frac{1}{12}$ (D) $\frac{1}{22}$
2. Closure property is not true for division of rational numbers because of the number (A) 1 (B) -1 (C) 0 (D) $\frac{1}{2}$
3. 0.000000002020 in scientific form is _____
 (A) 2.02×10^9 (B) 2.02×10^{-9} (C) 2.02×10^{-8} (D) 2.02×10^{-10}
4. perimeter of parallelograms is _____
 (A) bh (B) 2(a+b) (C) 4a (D) $\frac{1}{2} \times d_1 \times d_2$
5. If the area of a rectangular land is $(a^2 - b^2)$ sq. Units whose breadth is (a-b) then, its length is _____
 (A) a- b (B) a + b (C) $a^2 - b$ (D) $(a+b)^2$
6. (x+4) and (x-5) are the factors of _____
 (A) $x^2 - x + 20$ (B) $x^2 - 9x - 20$ (C) $x^2 + x - 20$ (D) $x^2 - x - 20$
7. Sum of a number and its half is 30 then the number is _____.
 (A) 15 (B) 20 (C) 25 (D) 40
8. A fruit vendor sells fruits for ₹200 gaining ₹40. His gain percentage is
 (A) 20% (B) 22% (C) 25% (D) $16\frac{2}{3}\%$
9. The time taken for ₹4400 to become ₹4851 at 10%, compounded half yearly is _____.
 (A) 6 months (B) 1 year (C) 1.5 years (D) 2 years
10. The difference between compound and simple interest on a certain sum of money for 2 years at 2%p.a is ₹1. The sum of money is _____.
 (A) ₹2000 (B) ₹1500 (C) ₹3000 (D) ₹2500
11. If $\Delta ABC \sim \Delta PQR$ in which $\angle A = 53^\circ$ and $\angle Q = 77^\circ$, then $\angle R$ is
 (A) 50° (B) 60° (C) 70° (D) 80°
12. The area of a rectangle of length 21cm and diagonal 29cm is _____.
 (A) 609 cm^2 (B) 580 cm^2 (C) 420 cm^2 (D) 210 cm^2

13. How many 2 digit numbers contain the number 7 ?

- (A) 10 (B) 18 (C) 19 (D) 20

14. Common prime factors of 36, 60 and 72 are

- (A) 2×2 (B) 2×3 (C) 3×3 (D) $3 \times 2 \times 2$

II. Filling in the blanks :

(5 X 1 = 5)

15. The number of non-square numbers between 24^2 and 25^2 is _____.

16. The meeting point of more than two edges in a polyhedron is called as _____.

17. The value of y in the equation $y - 9 = (-5) + 7$ is _____.

18. 2 minutes is _____% to an hour.

19. Similar triangles have the same _____ but not necessarily the same size.

20. To construct a trapezium, _____ measurements are enough.

III. Say true or false of the following:

(5 X 1 = 5)

21. When a square number ends in 6, its square root will have 6 in the unit's place.

22. The cube of 24 ends with the digit 4.

23. Area of a quadrant of a circle is $\frac{1}{4} \pi r^2$

24. The shifting of a number from one side of an equation to other is called transposition.

25. Depreciation value is calculated by the formula, $p \left(1 - \frac{r}{100}\right)^n$.

IV. Two-mark Questions :

(10 X 2 = 20)

(Answer any 10 Questions)

26. Evaluate $\frac{9}{132} \times \frac{-11}{3}$

27. Simplify: $\sqrt{2 \frac{7}{9}}$

28. Evaluate: $(5^0 + 6^{-1}) \times 3^2$

29. A circular shaped gymnasium ring of radius 35cm is divided into 5 equal arcs shaded with different colours. Find the length of each of the arcs.

30. Find the area of the combined figure given which is got by the joining of two parallelograms.

