

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

- 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) $\frac{1}{22}$
- Closure property is not true for division of rational numbers because of the number (A) 1 (B) -1 (C) 0 (D) $\frac{1}{2}$
- 0.0000000002020 in scientific form is _____.
(A) 2.02×10^9 (B) 2.02×10^{-9} (C) 2.02×10^{-8} (D) 2.02×10^{-10}
- perimeter of parallelograms is _____
(A) bh (B) 2(a+b) (C) 4a (D) $\frac{1}{2} \times d_1 \times d_2$
- 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) $(a+b)^2$
- $(x+4)$ and $(x-5)$ are the factors of _____
(A) $x^2 - x + 20$ (B) $x^2 - 9x - 20$ (C) $x^2 + x - 20$ (D) $x^2 - x - 20$
- Sum of a number and its half is 30 then the number is _____.
(A) 15 (B) 20 (C) 25 (D) 40
- A fruit vendor sells fruits for ₹200 gaining ₹40. His gain percentage is (A) 20% (B) 22% (C) 25% (D) $16\frac{2}{3}\%$
- 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
- 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
- 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°
- 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? www.Padasalai.Net
(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)

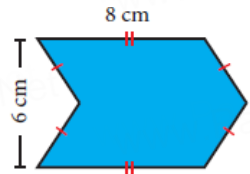
- The number of non-square numbers between 24^2 and 25^2 is _____.
- The meeting point of more than two edges in a polyhedron is called as _____.
- The value of y in the equation $y - 9 = (-5) + 7$ is _____.
- 2 minutes is _____% to an hour.
- Similar triangles have the same _____ but not necessarily the same size.
- To construct a trapezium, _____ measurements are enough.

III. Say true or false of the following: (5 x 1=5)

- When a square number ends in 6, its square root will have 6 in the unit's place.
- The cube of 24 ends with the digit 4.
- Area of a quadrant of a circle is $\frac{1}{4} \pi r^2$
- The shifting of a number from one side of an equation to other is called transposition.
- 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)
- Evaluate $\frac{9}{132} \times \frac{-11}{3}$
 - Simplify: $\sqrt{2\frac{7}{9}}$
 - Evaluate: $(5^0 + 6^{-1}) \times 3^2$
 - 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.
 - Find the area of the combined figure given which is got by the joining of two parallelograms.



31. Expand $y^2 - 16$ by using $a^2 - b^2$ identity

32. One number is seven times another. If their difference is 18, find the numbers.

33. Find the quadrants without plotting the points on a graph sheet. $(3, -4)$, $(5, 7)$, $(2, 0)$, $(-3, -5)$

34. What is 25% of 30% of 400?

35. Find the length of the support cable required to support the tower with the floor.

36. The price of a rain coat was slashed from ₹1060 to ₹901 by a shopkeeper in the rainy season to boost the sales. Find the rate of discount given by him.

37. A works 3 times as fast as B and is able to complete a work in 24 days less than the days taken by B. Find the time in which they can complete the work together.

38. 210 men working 12 hours a day can finish a job in 18 days. How many men are required to finish the job in 20 days working 14 hours a day

IV. Five-mark Questions :

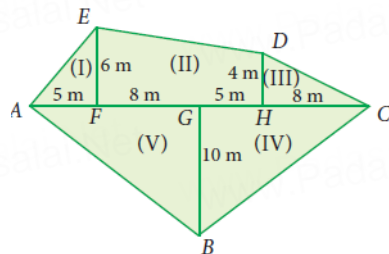
(8 X 5 =40)

(Answer any 8 Questions)

39. Simplify : $\left(\frac{4}{3} - \left(\frac{-3}{2}\right)\right) + \left(\frac{-5}{3} \div \frac{30}{12}\right) + \left(\frac{-12}{9} \times \frac{-27}{16}\right)$

40. Find the cube root of 729 and 6859 by prime factorization.

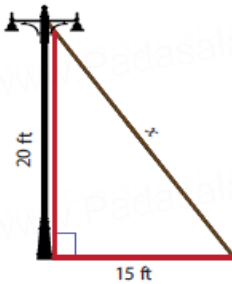
41. Find the area of an irregular polygon field whose measures are as given in the Figure.



42. The population of a town is increasing at the rate of 6% p.a. It was 238765 in the year 2018. Find the population in the year 2016 and 2020.

43. The denominator of a fraction is 3 more than its numerator. If 2 is added to the numerator and 9 is added to the denominator, the fraction becomes $\frac{5}{6}$. Find the original fraction.

44. A total of 90 currency notes, consisting only of ₹ 5 and ₹10 denominations, amount to ₹500. Find the number of notes in each denomination.



45. The income of a person is increased by 10% and then decreased by 10%. Find the change in his income.

46. Nishanth has a key-chain which is in the form of an equilateral triangle and a semicircle attached to a square of side 5 cm as shown in the Figure. Find its area.

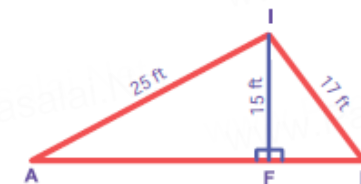
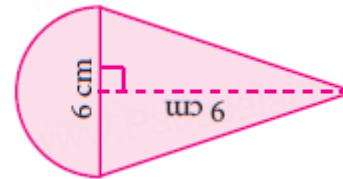
$(\pi = 3.14, \sqrt{3} = 1.732)$

47. A and B can do a piece of work in 12 days, while B and C can do it in 15 days whereas A and C can do it in 20 days. How long would each take to do the same work?

48. In the figure, find AR.

49. Using repeated division method, find the HCF of 184, 230 and 276

50. Find the area of the combined figure given, formed by joining a semicircle of diameter 6 cm with a triangle of base 6 cm and height 9 cm. $(\pi = 3.14)$



V. Eight - mark Questions : (2 X 8 =16)

51. Construct a trapezium **BOAT** in which \overline{BO} is parallel to \overline{TA} $BO=7cm$, $OA=6cm$, $BA=10cm$ and $TA=6cm$. Also find its area.

[OR]

Construct the following parallelograms with the given measurements and find their area. **EARN**, $ER=10cm$, $AN=7cm$ and $\angle EOA=110^\circ$ where \overline{ER} and \overline{AN} intersect at **O**.

52. Draw straight lines by joining the points $A(2, 5)$ $B(-5,-2)$ $M(-5, 4)$ $N(1,-2)$ also find the point of intersection.

[OR]

Draw the graph of $x = 5$

Kindly send me your district Questions & Keys to email Id - Padasalai.net@gmail.com