

ANNUAL EXAMINATION - 2024

8 - STD

MATHEMATICS



Marks : 10

Time : 2.30 Hrs

I Choose the correct answers.

10 X 1 = 10

1. The sum of the digits of the denominator in the simplest form of $\frac{112}{528}$ is
 a) 4 b) 5 c) 6 d) 7
2. is added to 242 to get 252. a) 4² b) 5² c) 6² d) 7²
3. If $\frac{10^x}{10^{-3}} = 10^9$, then x is a) 4 b) 5 c) 6 d) 7
4. If the area of a square is $36x^4y^2$, then its side is
 a) $6x^2y^2$ b) $8x^2y^2$ c) $6x^2y$ d) $-6x^2y$
5. $(a - b) = 3$ and $ab = 5$ then $a^3 - b^3 =$
 a) 15 b) 18 c) 62 d) 72
6. The product of LCM and HCF of two numbers is 24. If one of the number is 6, then the other number is
 a) 6 b) 2 c) 4 d) 8
7. By selling a flower pot for Rs. 528, a woman gains 20%. At what price should she sell it to gain 25%? a) Rs. 500 b) Rs. 650 c) Rs. 553 d) Rs. 573
8. If $\Delta ABC \sim \Delta PQR$ in which $A = 53^\circ$ and $Q = 77^\circ$ then R is
 a) 50° b) 60° c) 70° d) 80°
9. Inclusive series is a series.
 a) Continuous b) Discontinuous c) Both d) None
10. Every number of the Fibonacci sequence is multiple of 8.
 a) 2nd b) 4th c) 6th d) 8th

II Fill in the blanks.

5 X 1 = 5

11. $(\frac{-1}{3})^{-5}$
12. The cross section of a solid cylinder is
13. A alone can do a piece of work in 35 days. If B is 40% more efficient than A, then B will finish the work in days.
14. In any triangle sides are opposite to equal angles.
15. Pie chart is a graph.

5 X 1 = 5

III True or False.

16. $-\frac{19}{5}$ is greater than $\frac{15}{-4}$.
17. Subtracting 10^3 from 1729 gives 9^3 .
18. Linear equation in one variable has only one variable with power 2.
19. $(-9, 0)$ lies on the X - axis.
20. Media and business people use pie charts.

5 X 1 = 5

IV Match.

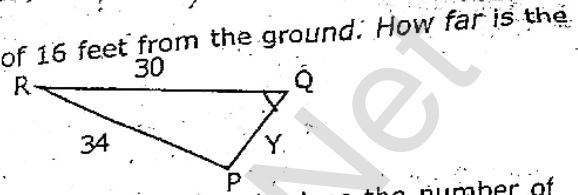
21. $(3^7)^{-2}$ - 20
22. A Cube - Ungrouped data
23. $\frac{1}{2} = 10$ - 6 faces
24. Area of a trapezium - 3^{-14}
25. Bar graph - $\frac{1}{2}h(a+b)$

V Answer the following. (any 12).

26. Find the sum $\frac{1}{5} + \frac{3}{5}$.
27. Is 108 a perfect square number?

K. SIVANANDHA, M.A. B.ed.
 BT. ASST [SOCIAL SCIENCE] 12 X 2 = 24
 GOVT. HIGH. SCHOOL,
 SANDANAPALLE
 KELAMANGALAM (BLOCK) Page - 1
 KRISHNAGIRI (OT).

28. The radius of a sector is 21 cm and its central angle is 120° .
29. Find the product of $2x^2y^2$, $3y^2z$ and -2^2x^3 .
30. Find the volume of a cube whose side is $(x + 1)$ cm.
31. Factorize : $y^2 - 10y + 25$.
32. Solve : $\frac{4y}{3-7} = \frac{2y}{5}$
33. One number is seven times another. If their difference is 18, find the numbers.
34. Find the difference in C.I. and S.I. for P = Rs. 5000, r = 4% p.a., n = 2 years.
35. 48 is 32% of which number?
36. A and B together can do a piece of work in 16 days and A alone can do it in 48 days. How long will B take to complete the work?
37. A 20 feet ladder leans against a wall at height of 16 feet from the ground. How far is the base of the ladder from the wall?



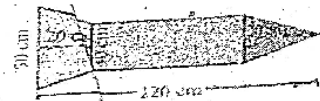
38. Find the unknown side in following triangle.
39. Represent the following data in un grouped frequency table which gives the number of children in 25 families. 1,3,0,2,5,2,3,4,1,9,5,4,3,1,3,2,5,2,1,1,2,6,2,1,4.
40. Using repeated subtraction method, find the HCF of 42 and 70.
41. Form additive cipher table (Key = 4).
42. ABC is a triangle and G is its centroid. If AD = 12 cm, BC = 8cm and BE = 9 cm, find the perimeter of $\triangle BDG$.

$7 \times 5 = 35$

- VI. Answer the following (any 7):
43. Write the following rational 1 numbers in ascending and descending order.

$\frac{-3}{5}, \frac{7}{-10}, \frac{-15}{20}, \frac{14}{-30}, \frac{-8}{15}$

44. Find the square root of 17956 by long division method.



45. A rocket drawing has the measures as given in the figure. Find its area.
46. Find the volume of the cuboid whose dimensions are $(x + 2)(x - 1)$ and $(x - 3)$.
47. If 48 men working 7 hours a day can do a work in 24 days, then in how many days will 28 men working 8 hours a day can complete the same work?
48. Draw a pie diagram to represent the following data, which shows the expenditure of paddy cultivation in 2 acres of land.

| Particulars | seeds | Ploughing | Wages | Fertilizer | Harvest | Others |
|-------------|-------|-----------|-------|------------|---------|--------|
| Expenses | 2000 | 6000 | 10000 | 7000 | 8000 | 3000 |

49. The distribution of heights (in cm) of 100 people is given below. Construct a histogram and the frequency polygon imposed on it.
- | Height (in cm) | 125-135 | 135-145 | 145-155 | 155-165 | 165-175 | 175-185 | 185-195 |
|----------------|---------|---------|---------|---------|---------|---------|---------|
| Frequency | 12 | 22 | 18 | 24 | 15 | 77 | 2 |

50. Using repeated division method, find the HCF of 392 and 256.
51. A can do a work in 45 days. He works it at for 15 days and then, B alone finishes the remaining work in 24 days. Find the time taken to complete 80% of the work, if they work together.

52. The length of a rectangular field exceeds its breadth by 9 meters. If the perimeter of the field is 154 cm., find the length and breadth of the field.

$2 \times 8 = 16$

- VI. Answer all the questions.
53. Construct a quadrilateral with AB = 5 cm, BC = 4.5 cm, CD = 3.8 cm, DA = 4.4 cm, AC = 6.2 cm. Also find its area. (OR) Construct a square LAMP of side 4cm. Also find its area.
54. Graph the equation $y = x + 1$. (OR) If the points P(5,3) Q (-3, 3) R (-3, -4) and S form a rectangle, then find the coordinate of S.