THIRU TUITION CENTRE

KUNICHI,TIRUPATTUR, VELLORE DISRICT.

VII STD **3.LIFE MATHEMATICS** $112 \times 1 = 112$ marks

Choose the best answer

1. **The comparison of two quantities of the same kind by means of division is termed as Ratio**
2. **The two quantities to be compared are called the terms of the ratio.**
3. **The first term of the ratio is called the antecedent and consequent the second term is called the**
4. **In a ratio, only two quantities of the same sameunit can be compared.**
5. **If the terms of the ratio have common factors, we can reduce it to its lowest terms by cancelling the common terms**
6. **When both the terms of a ratio are multiplied or divided by the same number (other than zero) the ratio remains unchanged .The obtained ratios are called equivalent ratios**
7. **In a ratio the order of the terms is very important. (Say True or False) True**
8. **Ratios are mere numbers. Hence units are not needed. (Say True or False) True**

9. **Equality of two ratios is called a proportion.If** $a, b; c, d$ **are in proportion, then** $a : b :: c : d$ **.**
10. **In a proportion, the product of extremes product of means**
11. **Find the ratio of** 9 **months to** 1 **year** $= 3 : 4$
12. **If a class has** 60 **students and the ratio of boys to girls is** $2 : 1$**, find the number of boys and girls. Number of girls=**20
13. **The ratio of boys to girls in a class is** $4 : 5$**. If the number of boys is** 20**, find the number of girls. Number of girls=**25
14. **Golden Ratio is a special number approximately equal to** $1.6180339887498948482...$
15. **A Golden Rectangle is a rectangle in which the ratio of the length to the width is the Golden Ratio. If width of the Golden Rectangle is** 2 **ft long, the other side is approximately** $= 2(1.62) = 3.24$ **ft**
16. **If an increase**$(\uparrow)$ **[decrease** $(\downarrow)$**] in one quantity produces a proportionate increase** $(\uparrow)$ **[decrease** $(\downarrow)$**] in another quantity, then the two quantities are said to be in direct variation.**
17. **If an increase**$(\uparrow)$ **[decrease** $(\downarrow)$**] in one quantity produces a proportionate increase** $(\uparrow)$ **[decrease** $(\downarrow)$**] in another quantity, then the two quantities are said to be in inverse variation.**
18. **when two quantities vary directly the ratio of the two given quantities is always a constant.**

19. If the cost of 8 kgs of rice is 160, then the cost of 18 kgs of rice is
20. If the cost of 7 mangoes is 35, then the cost of 15 mangoes is
21. A train covers a distance of 195 km in 3 hrs. At the same speed, the distance travelled in 5 hours is
22. If 8 workers can complete a work in 24 days, then 24 workers can complete the same work in
23. If 18 men can do a work in 20 days, then 24 men can do this work in
24. Express $\frac{3}{5}$ as a percent 60 percent
25. Express $6\frac{1}{4}$ as a percent 625 percent
26. Express 0.07 as a percent 7 percent
27. Express 0.567 as a percent 56.7 percent
28. $6.25 = 625$ percentage
29. $0.0003 = 0.03$ percentage
30. $\frac{5}{20} = 25$ percentage
31. The percent of 20 minutes to 1 hour is $33\frac{1}{3}$
32. The percent of 50 paise to Rs.1 is 50
33. Express 15 percentage as a decimal 0.15
34. Express $\frac{1}{4}$ percentage as a fraction $\frac{1}{400}$
35. Express 25.7 percentage as a decimal 0.257
36. Find the value of 20 of 1000 kg. 200 kg.
37. Find the value of $\frac{1}{2}$ percentage of $200. = 1$
38. The common fraction of 30 is $\frac{3}{10}$
39. The common fraction of $\frac{1}{2}$ percentage is $\frac{1}{200}$
40. The decimal equivalent of 25 percentage is 0.25

41. **The common fraction of** 30 **percentage is**
42. **The common fraction of** $\frac{1}{2}$ **percentage is**
43. **The decimal equivalent of** 25 **percentage is**
44. 10 **percentage of Rs.**300 **is** $Rs.30$
45. 5 **percentage of Rs.**150 **is** $Rs.7.50$
46. **A team played** 25 **matches in a season and won** 36 **of them. Find the number of matches won by the team.** 9 **matches**
47. **Profit = Selling Price Cost Price**
48. **Selling price of apple > Cost price of apple, there is a profit.**
49. **Cost price of banana > selling price of banana, there is a loss.**
50. **Profit = Selling Price − Cost Price**
51. **Loss = Cost Price Selling Price**
52. **Profit percentage** $= \frac{profit}{C.P} \times 100$
53. **Loss percentage** $= \frac{loss}{C.P} \times 100$
54. **If the cost price of a bag is Rs.**575 **and the selling price is Rs.**625**, then there is a profit of Rs.**50
55. **If the cost price of the box is Rs.**155 **and the selling price is Rs.**140**, then there is a loss of Rs.**15
56. **If the selling price of a bag is Rs.**235 **and the cost price is Rs.**200**, then there is a profit Rs.**35
57. **Gain or loss percent is always calculated on cost price**
58. **If a man makes a profit of Rs.**25 **on a purchase of Rs.**250**, then profit percentage is** 10

59. **Find the S.I. and the amount on Rs.**$5,000$ **at** 10**per annum for** 5 **years.** $Rs.2500$,$Rs.7500$
60. **Find the simple interest and the amount due on** ‘$6,750$ **for** 219 **days at** 10**per annum. Interest** $= Rs.405$**, Amount** $= Rs.7,155$
61. **A sum of money triples itself at** 8 **percentage per annum over a certain time. Find thenumber of years.Number of years=** 25
62. **Simple Interest on Rs.**1000 **at** 10 **per annum for** 2 **years is Rs.**200
63. **If Amount** $= Rs.11,500$**, Principal** $= Rs.11,000$**, Interest is Rs.**500
64. 6 **months** $= \frac{1}{2}$ **year.**
65. 292 **days** $= \frac{4}{5}$ **year.**
66. **If** $P = Rs.14000$**,** $I = Rs.1000$**,** A **is** $Rs.15000$
67. **The formula to calculate interest is I** $= \frac{pnr}{100}$

4.MEASUREMENTS

68. **Perimeter of the rectangle** $= 2(l + b)$ **units**
69. **Perimeter of the square** $= 4a$ **units**
70. **Perimeter of the triangle** $= (a + b + c)$ **units**
71. **Area of the rectangle** $= l \times b$ **sq. units**
72. **Area of the square** $= a \times a$ **sq. units**
73. **Area of the right triangle** $= \frac{1}{2}(b \times h)$ **sq.units**
74. **Find the area and the perimeter of a rectangular field of length** 15 **m and breadth** 10 **m. Area=** $150m^2$

75. The area of a rectangular garden 80m long is 3200sq.m. Find the width of the garden.
Width of the garden $= 40$ m

76. Area of the quadrilateral $= \frac{1}{2} \times d \times (h_1 \times h_2)$ sq.units.

77. The area of a quadrilateral is 525 sq. m. The perpendiculars from two vertices to the diagonal are 15 m and 20 m. What is the length of this diagonal ?
The length of the diagonal $= 30$ m.

78. Area of parallelogram $= bh$ sq. Units

79. Find the height of a parallelogram whose area is $480cm^2$ and base is 24 cm.height of a parallelogram $= 20$ cm.

80. The area of the parallelogram is $56cm^2$. Find the base if its height is 7 cm. base of a parallelogram $= 8$ cm.

81. The height of a parallelogram whose area is $300cm^2$ and base 15 cm is

82. The base of a parallelogram whose area is $800cm^2$ and the height 20 cm is

83. The area of a parallelogram whose base is 20 cm and height is 30 cm is

84. Square is a rhombus but a rhombus is not a square.

85. Find the area of a rhombus whose side is 15 cm and the altitude (height) is 10cm Area of the rhombus $= 150cm^2$

86. **A flower garden is in the shape of a rhombus. The length of its diagonals are** 18 **m and** 25 **m. Find the area of the flower garden.**

Area of the flower garden$= 225m^2$

87. **Area of a rhombus is** 150 **sq. cm. One of its diagonal is** 20 **cm. Find the length of the other diagonal.**

The length of the other diagonal$= 15$ **cm.**

88. **A field is in the form of a rhombus. The diagonals of the fields are** 50 **m and** 60 **m. Find the cost of levelling it at the rate of Rs.**2 **per sq.m.**

cost of levelling 1500 sq. m $= Rs.3000$

89. **The area of a rhombus**$A = \frac{1}{2}(d_1 \times d_2)$ **sq.units**

90. **The diagonals of a rhombus bisect each other at** 90°

91. **The area of a rhombus whose diagonals are** 10 **cm and** 12 **cm is** $60cm^2$

92. **Area of a trapezium**$A = \frac{1}{2} \times h \times (a + b)$ **sq.units**

93. **Find the area of the trapezium whose height is** 10 **cm and the parallel sides are** 12 **cm and** 8 **cm of length.**

Area of the trapezium $= 100sq.cm^2$

94. **In an isosceles trapezium non parallel sides are equal**

95. **The sum of parallel sides of a trapezium is** 18 **cm and height is** 15 **cm. Then its area is** $135cm^2$

96. **The height of a trapezium whose sum of parallel sides is** 20 **cm and the area** $80cm^2$ **is** $8cm$

97. **A line segment joining any two points on the circle is called a chord**
98. **Circumference of a circle** $= \pi d = 2\pi r$ **units**
99. **Find the circumference of a circle whose diameter is** 21 **cm.** $= 22$ **m**
100. **The line segment that joins the centre of a circle to any point on the circle is called Radius**
101. **A chord passing through the centre is called Diameter**
102. **The diameter of a circle is** 1 **m then its radius is** 10 **cm**
103. **The circumference of a circle whose radius is** 14 **cm is** 88 **cm**
104. **Are of the circle=** πr^2 **sq.units**
105. **Find the area of a circle whose diameter is** 14 **cm Area of circle** $= 154$ **sq. cm**
106. **The circumference of a circular park is** 176 **m. Find the area of the park. Area of the park** $= 2464$ **sq. m.**
107. **Area of the pathway** $= (l + 2w)(b + 2w) - lw$ **sq.units**
108. **The area of outer rectangle is** $360m^2$**. The area of inner rectangle is** $280m^2$**. The two rectangles have uniform pathway between them. What is the area of the pathway?**
    Area of the pathway $= 80m^2$

109. **The area of the circular path** $= \pi(R^2 - r^2)$ **sq.units**

110. **From a circular sheet of radius** 5 **cm, a concentric circle of radius** 3 **cm is removed. Find the area of the remaining sheet?**

Area of the remaining sheet $= 50.24cm^2$

111. **A circus tent has a base radius of** 50 **m. The ring at the centre for the performance by an artists is** 20 **m in radius. Find the area left for the audience.**

$A = 6594$**sq.m**

112. **A circular flower garden has an area** $500m^2$**. A sprinkler at the centre of the garden can cover an area that has a radius of** 12 **m. will the sprinkler water the entire garden.**

Area covered by a sprinkler $= 452.16m^2$

Best wishes by M.THIRUPATHYSATHIYA M.Sc.,M.Phil.,B.Ed.,CCA.,

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