Tsi8M

Tenkasi District
Common Annual Examination - 2025

16.04.25

Standard 8
MATHEMATICS

Time: 2.30 Hours Marks: 100

I. Choose the correct answer. **9x1=9**

1) $\sqrt{48}$ is approximately equal to .....
a) 5 b) 6 c) 7 d) 8

2) $\left(\frac{3}{4}-\frac{5}{8}\right)+\frac{1}{2}$ = ...
a) $\frac{15}{64}$ b) 1 c) $\frac{5}{8}$ d) $\frac{1}{16}$

3) If the area of a rectangle is $48m^2n^3$ and Whose length is $8mn^2$ then its breadth is .....
a) 6mn b) $8m^2n$ c) $7m^2n^2$ d) $6m^2n^2$

4) If $x^2-y^2=16$ and $(x+y)=8$ then $(x-y)$ is .....
a) 8 b) 3 c) 2 d) 1

5) What is the marked Price of a hat which is bought for ₹210 at 16% discount?
a) ₹243 b) ₹176 c) ₹230 d) ₹250

6) Two similar triangles will always have angles.
a) acute b) obtuse c) right d) matching

7) The hypotenuse of a tright angled triangle of sides 12cm and 16cm is .....
a) 28cm b) 20cm c) 24cm d) 21cm

8) The graphical representation of grouped data is .....
a) bar graph b) pictograph c) piechart d) histogram

9) How many outcomes can you get when you toss three coins once?
a) 6 b) 8 c) 3 d) 2

II. Fill in the blanks: **5x1=5**

10) The value of $\frac{-5}{12}+\frac{7}{15}$ = ...

11) The longest chord of a circle is .....

12) The value of P in the equation $\frac{2P}{3}=10$ is .....

13) The medians of a triangle cross each other at .....

14) The range of the data 200, 15, 20, 103, 3, 196 is

III. Say True or False: **5x1=5**

15) The square root of 225 is 15

16) In a right angled triangle, the hypoten use is the greatest side

17) Inclusive series is a continuous series

18) If the present population of a city is P and it increases at the rate of r% p.a, Then the population n years ago would be $P\left(1+\frac{r}{100}\right)^n$

19) $8x^3y \div 4x^2 = 2xy$

IV. Match the following: **5x1=5**

20) Circumference of a semicircle - $-12y^3$
21) $4y^2 \times (-3y)$ - 35
22) Area of trapezium - 89
23) The upper limit of the class interval (25 – 35) is - $\frac{1}{2}h(a+b)$ sq.u
24) Eleventh Fibonacci number - $(\pi+2)r$

V. Answer any 10 questions: **10x2=20**

25) Subtract : $\frac{-8}{44}$ from $\frac{-17}{11}$

26) Find x so that $(-7)^{x+2} \times (-7)^5 = (-7)^{10}$

27) A spinner of radius 7.5cm is divided into 6 equal sectors. Find the area of each of the sectors

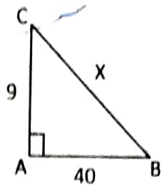
28) Find the product of $2x^2y^2$, $3y^2z$ and $-z^2x^3$

29) Factorise: $4x^2y + 8xy$

30) Akila scored 80% of marks in an examination. If her score was 576 marks, then find the maximum marks of the exmination.

31) A and B together can do a piece of work in 16days and A alone can do it in 48 days. How long will B take to complete the work?

32) *Find the value of x in the following triangle?*



33) Convert the given discontinuous series into a continuous series

Class	0-5	6-11	12-17	18-23	24-29
Frequency (f)	7	10	9	5	12

34) Shanthi has 5 Chudithar sets and 4 Frocks. In how many possible ways, can she wear either a Chudithar or a Frock?

35) Using repeated substraction method. Find the HCF of the numbers 36 and 80

36) Solve: $2x+5=9$

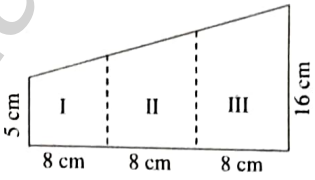
VI. Answer any 8 questions: 8x5=40

37) Write the following rational numbers in ascending and descending order

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

38) Simplify: $\left[\frac{11}{8}\times\left(\frac{-6}{33}\right)\right]+\left[\frac{1}{3}+\left(\frac{3}{5}\div\frac{9}{20}\right)\right]-\left[\frac{4}{7}\times\frac{-7}{5}\right]$

39) *A 3-fold invitation card is given with measures as in the figure. Find its area*

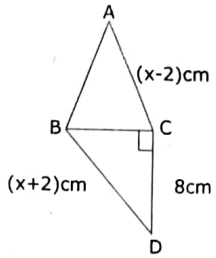


40) Find the value of $(103)^3$

41) Factorise $x^2+8x+15$

42) *The bacteria in a culture grows by 5% in the first hour, decreases by 8% in the second hour and again increases by 10% in the third hour. Find the count of the bacteria at the end of 3 hours, if its initial count was 10000.*

43) *ΔABC is equilateral and CD of the right angled BCD is 8cm. Find the side of the equilateral ΔABC and also BD.*



44) Draw a suitable pie chart for the following data relating to the cost of construction of a house

Particulars	Bricks	Steel	Cement	Timber	Labour	others
Expenses	10%	15%	25%	10%	20%	20%

Also, find how much was spent on labour if ₹55000 was spent for cement.

45) In a study of dental Problem, the following data were obtained

Ages	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of patients	5	13	25	14	30	35	43	50

Represent the above data by a frequency polygon.

46) Frame Additive cipher table (key = 4)

SIVAKUMAR.M
Sri Ram Matric Hss
Vallam-627809

VII. Answer any two questions: 2x8=16

47) Construct a quadrilateral MATH with MA = 4cm, AT = 3.6cm, TH = 4.5cm, MH = 5cm and $\angle A = 85^0$. Also find its area

(OR)

Construct a parallelogram BEAR with BE = 7cm, BA = 7.5 and $\angle BEA = 80^0$. Also find its area

48) 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 $y = -3x$