V8M

Virudhunagar District

Common Second Mid Term Test - 2023

Standard 8

MATHS

Time: 1.30 Hrs. Marks: 50

I. Choose the best answer: 5×1=5

1) $(p+q)(p^2-pq+q^2)$ is equal to _____.
   a) p^3+q^3 b) $(p+q)^3$ c) p^3-q^3 d) $(p-q)^3$
2) Factors of $4-m^2$ are
   a) $(2+m)(2+m)$ b) $(2-m)(2-m)$
   c) $(2+m)(2-m)$ d) $(4+m)(4-m)$
3) If 5 persons can do 5 jobs in 5 days, then 50 persons can do 50 jobs in _____ days.
   a) 5 b) 7 c) 9 d) 11
4) Two numbers are said to be co-prime numbers if their H.C.F is _____.
   a) 2 b) 3 c) 0 d) 1
5) Area of Rhombus = _____.
   a) bh sq.units b) $\frac{1}{2} \times d_1 \times d_2$ sq.units
   c) $\frac{1}{2}(d_1+d_2)$ sq.units d) $\frac{1}{2} \times h(a+b)$ sq.units

II. Fill in the blanks: 4×1=4

6) The value of m in the equation $8m^{\frac{1}{2}} = 56$ is _____.
7) A can finish a job in 3 days whereas B finishes it in 6 days. The time taken to complete the job working together is _____ days.
8) Common prime factors of 30 and 250 are _____.
9) If $x^2-y^2 = 16$ and $x+y = 8$ then $(x-y)$ is _____.

III. True or False: 4×1=4

10) Linear equation in one variable has only one variable with power 2.
11) "Sum of a number and two times that number is 48" can be written as $y+2y = 48$.
12) The largest number of three consecutive numbers is $x+1$, then the smallest number is $x-1$.
13) In parallelogram opposite sides always equal and parallel.

IV. Answer any three: 3×2=6

14) Expand : $(3m+5)^2$
15) Factorise : $x^2+8x+15$
16) A cement factory makes 7000 cement bags in 12 days with the help of 36 machines. How many bags can be made in 18 days using 24 machines?
17) Using repeated division method find the H.C.F of 455 and 26.
18) Using repeated subtraction method, find the H.C.F of 144 and 120.

V. Answer any three: **3×5=15**

19) i) Expand : $(x+3)(x+5)(x+2)$

ii) Find x : $-3(4x+9) = 21$

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

21) X, Y and Z can do a piece of job in 4, 6 and 10 days respectively. If X, Y and Z work together to complete, then find their separate shares if they will be paid ₹ 31,000 for completing the job.

22) If 6 container lorries can transport 135 tonnes of goods in 5 days, how many more lorries are required to transport 180 tonnes of goods in 4 days.

23) Using repeated division method find H.C.F of 184, 230 and 276.

VI. Answer the following: **2×8=16**

24) a) Construct a parallelogram BIRD with BI = 6.5 cm, IR = 5 cm and $\angle BIR = 70^o$. Also find its area. **(OR)**

b) Construct a parallelogram GAIN. GA = 7.5 cm, GI = 9 cm and $\angle GAI = 100^o$.

25) a) Construct a rhombus NEST with NS = 9 cm and ET = 8 cm also find its area. **(OR)**

b) Construct a rhombus FACE, FA = 6 cm and FC = 8 cm.
