* SECOND MID TERM TEST - 2024

Standard - VIII

Time: 1.30 hrs **MATHEMATICS** **Marks:50**

I Choose the correct answer: **7x1=7**

1. If $x^2 - y^2 = 16$, and $(x+y) = 8$ then $(x-y)$ is _____
   a) 8 b) 3 c) 2 d) 1
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
3. The value of M in the equation $8m=56$ is _____
   a) 7 b) 8 c) 9 d) 11
4. Sum of a number and its half is 30 then the number is _____
   a) 15 b) 20 c) 25 d) 40
5. 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
6. Every 3rd number of the fibonacci sequence is a multiple of 8
   a) 2 b) 3 c) 5 d) 8
7. Common prime factors of 30 and 250 are
   a) 2 x 5 b) 3 x 5 c) 2 x 3 x 5 d) 5 x 5

II Match the following **5x1=5**

8. $x + 5 = 12$	-	$a^2 - b^2$
9. $\frac{2p}{3} = 10$	-	$\frac{1}{2} \times d_1 \times d_2$ sq.units
10. $(a+b)(a-b)$	-	5
11. Area of rhombus	-	15
12. HCF of 20 & 15	-	7

III Answer any 5 questions: **5x2=10**

13. Expand : $(3a+4c)^2$
14. Expand : $(y-5)^3$
15. Factorise $18xy - 12yz$
16. Factorise $y^2-10y+25$
17. Solve the equation $x - 7 = 6$
18. Convert the following statements into linear equations. The sum of 4 times a number and 18 is 28.
19. Using repeated subtraction method, find the HCF of 36 and 80.

IV Answer any 4 questions:- **4x5=20**

20. Simplify: $(P-2)(P+1)(P-4)$
21. Expand: $(104)^3$
22. Find the volume of the cuboid whose dimensions are $(x+2)(x-1)$ and$(x-3)$.
23. Factorise $x^3+15x^2+75x+125$
24. The sum of two numbers is 36 and one number exceeds another by 8. Find the numbers.
25. Using repeated subtraction method, find the HCF at 320, 120 and 95.

V Answer any one of the following: **1x8=8**

26. Construct a parallelogram BIRD with BI=6.5cm, IR=5cm and $\angle$BIR=70. Also Find its area.

(Or)

27. Construct a rhombus FACE with FA=6cm and FC=8cm, Also find its area.

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