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Class : 8

SECOND MID TERM TEST - 2024

MATHEMATICS

Time Allowed : 1.30 Hours] [Max. Marks : 50

YouTube/ Akwa Academy

PART- I

I. Choose the correct Answer. 5x1=5

1. $(a-b) = 3$ and $ab = 5$ then $a^3 - b^3 =$ ———

   (A) 15 (B) 18 (C) 62 (D) 72

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 largest number of three consecutive numbers is $x+1$, then the smallest number is

   (A) x (B) x+1 (C) x+2 (D) x-1

4. 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

5. What is the eleventh Fibonacci numbers?

   (A) 55 (B) 77 (C) 89 (D) 144

II. Fill in the blanks. 4x1=4

6. The value of m in the equation $8m = 56$ is ———
7. In an equation $a+b = 23$, the value of a is 14, then the value of b is ———
8. If HCF of two numbers is 1, then the numbers one said to be ———
9. If the angles of a triangle are in the ratio 2:3:4, then the difference between the greatest and the smallest angle is ———

III. Say true or false: 4x1=4

10. Linear equation in one variable has only one variable with power 2.
11. $5(3x+2) = 3(5x-7)$ is a linear equation in one variable.
12. Area of parallelogram in $\frac{1}{2} \times b \times h$ sq. units.
13. The co-ordinates of the origin are (1,1).

IV. Match the following: 4x1=4

14.	$a^2 - b^2$	-	$x = -24$
15.	$\frac{x}{2} = 10$	-	$x = 4$
16.	$7x - 4 - 8x = 20$	-	$(a+b)(a-b)$
17.	$20 = 6x - 4$	-	20

TPR/8/Mat/I

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PART - II

V. Answer any 5 of the following. **5x2=10**

18. Expand y^2-16 by using a^2-b^2 identify.

19. **Factorize:** $x^2+yz+xy+xz$

20. Multiply $(4x^2+9)$ and $(3x-2)$

21. Solve : $2x+5=9$

22. One number is seven times another. If their differences is 18, find the Numbers.

23. Expand: $(2n-1)(2n+3)$

24. 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.

VI. Answer any 3 of the following : **3x5=15**

25. Find the volume of cuboid whose dimensions are $(x+2)$ $(x-1)$ and $(x-3)$.

26. Factorise: (i) $x^2 + 8x + 16$ (ii) $y^2 - 10y + 25$.

27. 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 seperate shares if they will be paid Rs. 31,000 for completing the job.

28. 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?

29. One number is seven times another. If their difference is 18, find the numbers.

PART- III

VII. Answer any one the following. **1x8=8**

30. a) Construct a parallelogram BIRD with BI = 6.5 cm, IR = 5 cm and $\angle BIR = 70^\circ$. Also find its area.

(OR)

b) Construct a rhombus LEAF with LE = 6 cm and $\angle L = 65^\circ$. Also find its area.

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