

A

SECOND MID-TERM TEST - 2022

Standard - VIII

Time : 1.30 hrs

MATHS

Marks: 50

I. Answer all questions:-

7×1=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) 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) The linear equation in one variable has _____ solution.
 a) 0 b) 1 c) 2 d) 3
- 4) Sum of a number and its half is 30 then the number is _____
 a) 15 b) 20 c) 25 d) 40
- 5) The solution of the equation $ax + b = 0$ is _____
 a) $-\frac{b}{a}$ b) $\frac{b}{a}$ c) $-\frac{a}{b}$ d) $\frac{a}{b}$
- 6) Area of the parallelogram is _____ sq.units
 a) $\frac{1}{2}bh$ b) bh c) a^2 d) lb
- 7) Proportionality constant of Indirect variation is _____
 a) $xy = k, k > 0$ b) $\frac{x}{y} = k, k > 0$ c) $\frac{y}{x} = k, k > 0$ d) None of these

II. Answer any five questions. (14th question is compulsory) 5×2=10

- 8) Factorise the following by taking out the common factor.
 $x(b-2c) + y(b-2c)$
- 9) Factorise: $16p^4 - 1$.
- 10) Expand: $(x+a)(x+b)(x+c)$
- 11) Solve the equation: $x - 7 = 6$
- 12) Expand: $(P+2)^2$
- 13) Find the value of m in the equation. $8m = 56$.
- 14) If x and y vary directly, find k when $x = y = 5$.

(2)

VIII MATHS

III. Answer any five questions. (21st question is compulsory) $5 \times 5 = 25$

15) Find the value of $(103)^3$.

16) Factorise: $x^2 + 8x + 15$

17) 210 men working 12 hours a day can finish a job in 18 days. How many men are required to finish the job in 20 days working 14 hours a day?

18) Find the volume of the cube whose side is $(x+1)$ cm.

19) Find the area of the parallelogram, whose base and height are 6.5cm and 3.9cm.

20) Factorise the following expression using $(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$ identity
 $64x^3 + 144x^2 + 108x + 27$

21) Find the simple interest on Rs. $5a^2b^2$ for $4ab$ years at $7b\%$ per annum.

IV. Answer any one:-

$8 \times 1 = 8$

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

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