FORMATIVE ASSESSMENT - SECOND MID TERM

MATHEMATICS

Max. Marks: 50

Std - VIII

Time: 2 Hrs

Name of the School:	Name of the Student:
Place:	Roll No.:

I. Choose the correct answer: **10 x 1 = 10**

1) 12% of 500 is _____.

   a) 60   b) 0.6   c) 6   d) 0.06

2) If the marked price of an article is ₹ 9500 and the discount is ₹ 760, then the discount percentage is _____.

   a) 152%   b) 9%   c) 8%   d) 7%

3) The longest side of a right triangle is called _____.

   a) Base   b) Altitude   c) origin   d) Hypotenuse

4) If the selling price is greater than the cost price, there is a _____.

   a) Loss   b) Profit   c) Neither profit nor loss   d) Discount

5) The decimal form of 250% is _____.

   a) 2.5   b) 25   c) 0.25   d) 0.025

6) The highest power of the variable in a quadratic equation is _____.

   a) 2   b) 1   c) 3   d) 4

7) What percentage of 60 is 15? _____.

   a) 40 %   b) 25%   c) 2.5%   d) 15%

8) $\dfrac{x^{30}}{x^{20}} =$ _____.

   a) 10   b) 30   c) 20   d) 50

9) The tax on income earned is _____.

   a) Direct Tax   b) Indirect tax   c) GST   d) None

10) The expression $4a - b$ is a _____.

   a) Monomial   b) Binomial   c) trinomial   d) None

II. Match the following: 5 x 1 = 5

11) $2\dfrac{3}{4}$ -   C.P (1 – loss %)

12) S.P   - $SV\left(1-\dfrac{r}{100}\right)^{n}$

13) C.P   -   1

14) WDV   -   275%

15) x^0 - $\dfrac{S.P}{1+profit\%}$

III. Do as directed: (any 10) 10 x 2 = 20

16) What percentage of?   a) 40 is 20   b) 100 is 2

17) Express as fractions: a) 7.5%   b) 65%

18) State Pythagoras theorem.

19) If the area of a rectangular field is $(81x^2 – 27x)$ and one side is $9x$, what is the other side?

20) A student gets 31% marks in an examination but fails by 12 marks. If the pass percentage is 35%, find the maximum marks of the examination.

21) Prove that (8, 15, 17) is a Pythagorean triplet.

22) What is the rate of discount in a 'Buy 3 get 2 free' sale?

23) Express the following as percentage: a) 0.7   b) $4\dfrac{3}{8}$

24) What is 12% of 5% of 3500?

25) $\dfrac{(x^2 – 7xy – 19y^2)}{(x – 9y)}$

26) Find the difference in the compound interest on ₹ 62,500 for 1½ years at 8% p.a. compounded annually and when compounded half-yearly.

27) The marked price of a bicycle is ₹ 9,500 and the discount is ₹ 760. Find the S.P and discount %.

28) Divide: $(25x^3y^3 – 15x^5y)$ by $(5x^2y)$

IV. Answer any one of the following: 1 x 5 = 5

29) In $\triangle ABC$, $AD \perp BC$ and $AD^2 = BD \times CD$. Prove that $\triangle ABC$ is a right-angled triangle.

30) Find the difference between 500 reduced by 12% and then by 10% and 500 reduced by 22%. Find the effective reduction percentage in the first case.

V. Answer the following questions: (any 2) 2 x 5 = 10

31) A broken flagpole touched the ground at a distance of 5 m from its base. If the point where it broke is at a height of 3.75 m from the ground, what was the height of the flagpole before it broke?

32) The bill on a purchase made at a store came to ₹ 8694 after GST was charged at 5%. What was the selling price of the article? How much did the GST amount to? If this was the bill amount after applying a discount of 10%, find the marked price of the article. What was the CP if it had been marked up by 15%? What was the profit and profit percentage?

33) The marked price on a pair of jeans is ₹ 1200 and it is sold at a discounted price of ₹ 900. What is the amount of discount? What is the percentage of discount?