પુ.ના International School
Shree Swaminarayan Gurukul, Zundal

Name:	**Grade :7th ROLL NO-**
Date :	**Subject: Maths**
T.Sign :	**Marks: 80**

SECTION - A

(i) Choose correct option [1 x 10 = 10]

1. Number of element of a triangle is

   a. 6 b.5 c. 4 d. 3

2. Two figures are said to be congruent, if they have exactly the same

   a. Area b. Perimeter c. Shape and size d. length and width

3. The ratio of Fatima's income to her saving is 4:1. The percentage of money saved by her is

   a. 20 % b. 25% c.40% d. 80%

4. The interest on 30000 for 3 years at the rate of 15% per annum is.

   a. Rs 4500 b. Rs 9000 c. Rs 18000 d. Rs 13500

5. the standard form of -32/40 is.

   a. -32/40 b. -4/5. c. 4/-5. d. 32/-40

6. -3 can be written in the form of p / Q as

   a. -3/-1 b. -3/0. c. 0/-3. d. -3/1

7. The breadth of a rectangle whose length is 12 cm and perimeter is 36 cm^2

   a.6 cm b. 3 cm c. 9 cm d. 12 cm

8. If $a^x = 1$, then the value of x is (where $a \neq 1$)

   a. 1 b. 0 c. 2 d. None

9. The term of expression $4x^2 - 3xy$ are

   a. $4x^2$ and -3xy b. $4x^2$ and 3xy c. $4x^2$ and –x y d. x^2 and 3xy

10. For any two non zero rational numbers x and y, $x^5 \div y^5$ is equal to

    a. $(x + y)^1$ b. $(x + y)^0$ c. $(x + y)^5$ d. $(x + y)^{10}$

(ii) Fill the blank [1 x 10 = 10]

1. Two line segments are congruent, if _____
2. Among two congruent angles, one has a measure of 70^0, the measure of the Other angle is _____
3. $18\frac{3}{4}\%$ =_____
4. 30% of 300 is = _____
5. -3/8 is a _____ rational number.
6. 2 1 is a _____ rational number.
7. 1 hector is equal to _____
8. An algebraic expression containing _____ unlike terms is called a binomial.
9. . 432= 2^4 x 3
10. . $a^m \; x \; a^n = a$

(iii) Tell whether the statement is true or false: [1 X 10 = 10]

1. If two Triangles are equal in area, when they will be congruent
2. Every natural number is a rational number, but every rational number need not be a natural number.
3. Sum of two rational numbers is always a rational number
4. The area of a square of side 5cm is 30cm.
5. The area of a rectangle of sides 45cm and 12cm is $450cm^2$
6. A trinomial can be polynomial.
7. Sum of x and y is x + y.
8. $2^0 + 3^0 + 0^1 + 2^{136} = 1$.
9. $x^0 + x^0 = x^0 + x^0$ is true for all non zero values of x.
10. 4^9 is greater than $16^{3.}$

(IV) Solve: Each carry one mark [1X 10 = 10]

1. Give any two real life examples for congruent shapes.
2. Δ PQR ≅ ΔBCA. Write the part of ΔBCA that corresponding to $\angle Q$
3. Find ratio of 4 m to 400 cm.
4. Convert the given fractional numbers to percents: 1/8
5. Solve: (a) $\frac{-3}{5} + \frac{2}{5}$
6. Find the circumference of the circle with radius 14cm.
7. Find the area of circle with radius 35cm.
8. If m = 2, find the value of: 3m – 5
9. Express 256 as a power 2.
10. Show the terms and factors by tree diagrams: $1+x+x^2$

SECTION - B

Solve: Each carry two marks (Any Eight) [2 X 8= 16]

1. Find the whole quantity if:
   (i) 5% of it is 600 (ii) 12% of it is Rs. 1080
2. Find the amount to be paid at the end of 3 years in each case:
   Principal = Rs. 1,200 at 12% p.a.

3. Find the sum: $\frac{3}{5} + \frac{5}{3}$
4. Find : $\frac{7}{24} - \frac{17}{36}$
5. The length and breadth of a rectangular piece of land are 500 m and 300 m respectively. Find:
   Its area. The cost of the land, if 1 m^2 of the land costs Rs. 10,000.
6. Find the area of a square park whose perimeter is 320 m.
7. Add: 3mn, -5mn, 8mn,-4mn
8. Subtract: (a – b) from (a + b)
9. Simplify and express each of the following in exponential form:

$$\frac{2^3 \times 3^4 \times 4}{3 \times 32} \qquad \text{OR} \qquad [(5^2)^3 \times 5^4] \div 5^7$$

10. Find the value of: (-4) $\div \frac{2}{3}$
11. Find the product: $\frac{9}{2} \times \frac{-7}{4}$
12. You have to show that $\Delta AMP \cong \Delta AMQ$. In the following proof, supply the missing reasons

Steps	Reasons
1. PM = QM	1. _____
2. $\angle$PMA = QMA	2. _____
3. AM = AM	3. _____
4. ΔAMP ΔAMQ	4. _____

SECTION -C

Solve: Each carry three marks (Any Eight) [3 X 8 = 24]

1. The population of a city decreased from 25,000 to 24,500. Find the percentage decrease

.2. Arun bought a car for Rs. 3,50,000. The next year, the price went up to Rs 3,70,000. What was the percentage of price increase?

3. The length and breadth of a rectangular piece of land are 500 m and 300 m respectively.
Find: (i) Its area. (ii) The cost of the land, if 1 m^2 of the land costs Rs. 10,000.

4 Find if z = 10 , find the value of $z^4 - 3 (z - 10)$

6 . If p = -10, find the value of $p^2 - 2p - 100$

6 . Simplify: $\frac{(2^5)^2 \times 7^3}{8^3 \times 7}$

7. Simplify: $\frac{25 \times 5^2 \times t^8}{10^3 \times t^4}$

8. Find the breadth of a rectangular plot of land, if its area is 440 and the length is 22 m. Also find its perimeter.

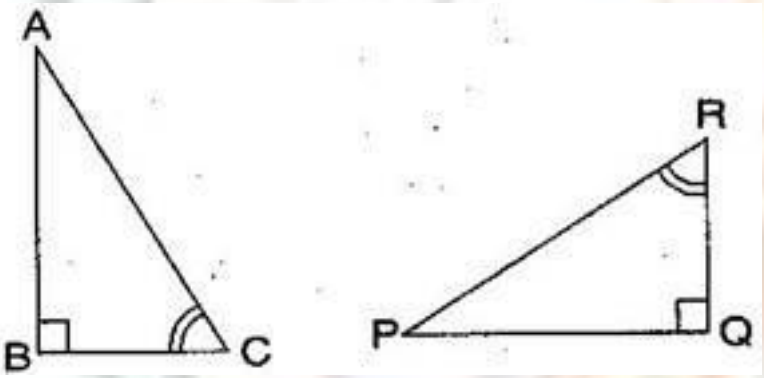
9. The perimeter of a rectangular sheet is 100 cm. If the length is 35 cm, find its breadth. Also find the area.

10 . (i) Chalk contains Calcium, Carbon and Oxygen in the ratio 10 : 3 : 12. Find the percentage of Carbon in chalk.

(ii). If in a stick of chalk, Carbon is 3 g, what is the weight of the chalk stick?

11 If ΔABC and ΔPQR are to be congruent, name one additional pair of corresponding parts.

What criterion did you use?



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