Final Examination - 2017-2018

MATHEMATICS

Std. : VI

Time : 2 hrs. + 15 min.

F. M. : 80

SECTION -A (20 Marks)

QI Solve the Following (10)

I. -8 X = _____ = –72

II. Write 81 as a power of 3 =

III. 9 m = _____ cm

IV. (-14) X _____ = 112

V. The value of 20 - a is _____ when a = –10

VI. If m +20 = 50 the value of 2m =_____

VII. 12 x ____= – 96

VIII. $|-81|$

IX. The equation of 25 more than the x is equal to three times x can be written as

X. $\sqrt{121}$ = _____

Q2 Do as directed (10)

i. Write the following in descending order -32, -64, 2,0, 12,- 18, 1,-1

ii. Solve $|10-4| \div |-3|$

iii. Find the value of $a^2 - 2a - 3$ for a = 2 is

iv. $\frac{1}{20}$ of 1000 ml is

v. If the diameter of a circle is 10.5 cm the radius will be

vi. Find the Interest on Rs 500 at 6 % p.a for 1 year.

vii. Write the Co-efficient of x in the following a) 3x b) -9pq

viii. Solve for x when $\frac{4x}{5} = 20$

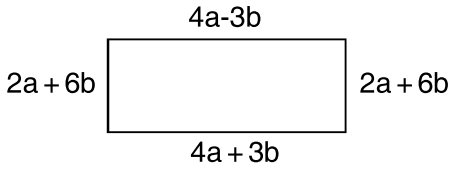
IX. The value of p^2q ,when p= -2 and q = 5

X. Add $x^2 + 2y$, $15x^2 + 8y$ and $5x^2 - 3y$

SECTION -B (18 Marks)

Q1. From $9x^2y$ take away $-5x^2y$ (2)

Q2. Find the Perimeter of the following figure (3)



Q3 Solve $80 - [20 - \{175 \div 5 - (28 - 16 \div 4) + 6\}]$ (3)

Q4 Krishna borrowed Rs 3000 from his friend Sanjeev at 12 % per annum for 3 years. Find the S.I. & the amount returned Krishna to Sanjeev at the end of 3 years. (4)

Q5 Substract the sum of $9b^2 - 3c^2$ and $2b^2 + bc - 2c^2$ from the sum of $2b^2 - 2bc - c^2$ and $c^2 + 2bc - b^2$ (3)

Q6. Simplify $\dfrac{7\frac{1}{2} \div \frac{5}{6}}{6\frac{3}{5} \text{ of } 1\frac{4}{11}}$ (3)

SECTION C (20 Marks)

Q1. At what rate of simple interest will Rs 350 amount to Rs 455 in 6 years (3)

Q2. Write in equation form and solve it (2+1)

i. Twice x decreased by 9 gives 11 (solve & verify)

ii. 12 more than x is 50

Q3. 73 of $[45 - \{6 \times 7 + (23 - 4 \text{ of } 5)\}]$ (3)

Q4. Find the value of $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$ (3)

Q5, The 2 angles of a triangle is 90^O and 39.50^O what is the 3rd angle? (3)

Q6. Add $3a - 4b - 7$ and $2a + 6b + 8$ (2)

Q7. Find the value of $4^3 \times 6^O + (-2)^3 - 8^O$ (3)

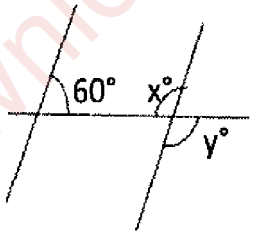
SECTION D

Q1. Construct a rectangle of length 7 cm and breadth 3 cm using compass and scale (5)

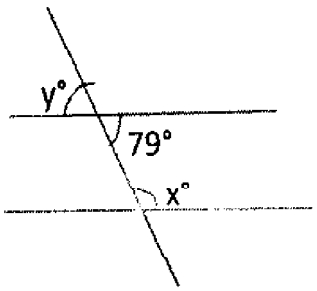
Q2. Draw a line segment PQ of 8 cm. Draw its Perpendicular bisection (4)

Q3. Find the value of x & y (With proper reasons) (4)

a)



b)



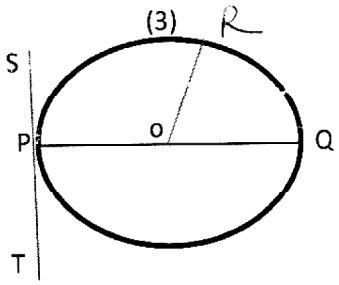
Fill in the blanks :

a. The 2 radii of the circle are _____, _____ and ____.

b. Name the diameter _____

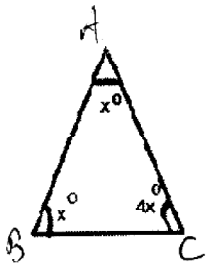
c. SPT is _____ of the circle

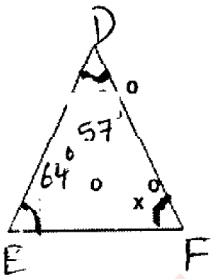
d. POR is _____ of the circle.



Q4. Find the value of x with (proper reason) (4)

a,





Q5. How many triangles are there in the shape? (2)