Half Yearly Examination - 2018-19

MATHEMATICS

Class : VI

Time : 2 Hrs. + 15 min **Full Marks : 80**

Section A

1. Solve the following : (10)

   a. The sum of m, 2m, 5m and 9 m is _____

   b. Multiply the successor of -98 with the predecessor of 0 _____

   c. The degree of the polynomial $3x^2 + 2x^3$ is _____

   d. Write an algebraic expression for the terms

      $2q^2$, $-3p^2 - 6pq$, 5

   e. $-50 + O^2 =$ ☐

   f. A triangle which has all the 3 sides equal is called _____

   g. The greatest four digit number formed by using 5, 0, 8, 9 is _____

   h. Put the correct sign (copy the numbers)

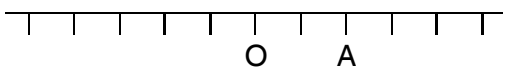
      6 x – 5 _____ –2 x 0

   i. Indicate by using appropriate integers _____ 15 degrees below freezing point.

   j. 16 + (–4) – (2) = _____

2. Choose the correct option (10)

a. In the figure below if point O represents zero on a number line, the point A represents



[–2, +2, +3)

b. $\frac{3}{8}$ in decimal form is written as [0.3, .375, 3.8]

c. Which of the following is equivalent to $\frac{12}{15}$

$\left[\frac{4}{5}, \frac{12}{14}, \frac{7}{10}, \frac{6}{9} \right]$

d. The point where the three meridians of a triangle meet [radius, controid, chord]

e. The sum of two integers is –12. If one of them is 6, the other is [–6, 6, –18, 18]

f. A figure having six lines of symmetry is called a [pentagon, hexagon, octagon]

g. The co-efficient of a in the term $17ab^2$ is

($17ab$, $17b^2$, ab^2, 17)

h. The values of $|-13| - |15|$ is [2, –2, –28, 28]

i. oh! I am really heavy. If you add 10kg to my weight, I will weigh a quintal. My weight is :

[10kg, 90kg, 110kg, 100kg]

j. If the number 46.1549 is multiplied by ten to the power of four, then the answer is ____

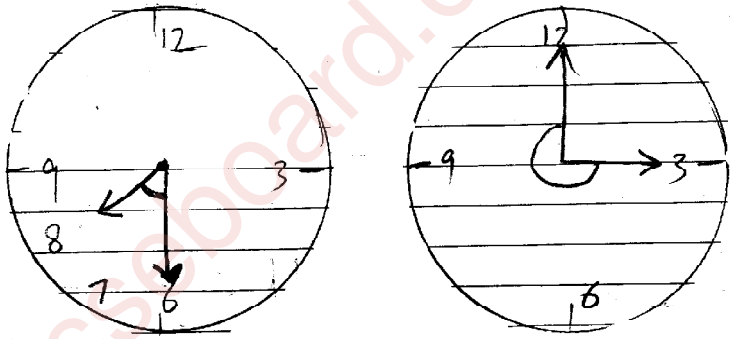
SECTION B (3 x 10)

(Show all the working clearly and highlight the answers)

1. Write in decimal form

a. $\frac{12}{25}$ b. Rs. 19 and 21 paise c. $\frac{5}{10} + \frac{7}{1000}$

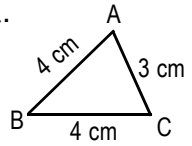
e. State the type of angle along with their measure on the following clock faces. (3)

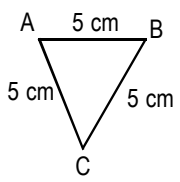


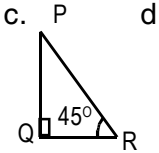
SECTION D (11+3)

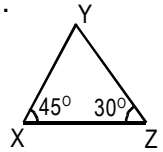
1. Identify the following triangles.

(Do not copy write answers) (2)

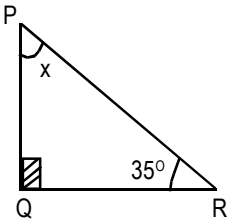
a. 

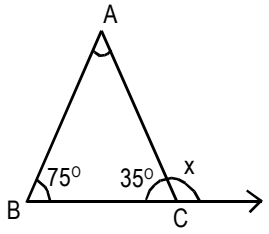
b. 

c. 

d. 

b. Find x in the following triangles (2)

i) 

ii) 

c. Write answers only : (5)

i. A triangle in which all sides are unequal is ____

ii. A triangle in which all the angles are less than 90° is called ____

iii. The perpendicular drawn from the vertex to the opposite side of a triangle is called its ____

iv. A trapezium is a ____ having one pair of parallel side.

v. A ____ is a parallelogram with all sides equal. (2)

d. Name the polygon

a. 

b. 

2. Evaluate

a. –1 + (–74) – 190 + (–5)

b. 6 + (–2) + (–7) + (–12)

c. 2000 + 516 + (–517) – 1999

3. In the algebraic expression $y^3 + 3y^2 + \frac{7}{10} y^5 + 11$

a. Write the number of terms of the given expression.

b. Write the terms.

c. Which is the constant term?

d. Write the co-efficient of y^3

e. Write the degree of the expression.

f. Write the co-efficient of y in the term $\frac{7}{10} y^5$

4. Solve the following : (1+2)

a. Add :

$$\begin{array}{r} 3a - 2b + 5c \\ 4a + 7b - 9c \\ \hline -6a \quad -4b - 3c \\ \hline \\ \hline \end{array}$$

b. Subtract $2x^3 + 9x^2 - 7x - 8$ from $3x^3 - 5x^2 - 9x + 6$

5. a. Find the value of $3p + 2q - r$ if $p = 2, q = 3, r = -1$

b. If $x = 3, y = 2$ and $z = 4$ then find he value of

a) $x^x + y^y + z$

6. Simplify :

a. $3a(2ab - 3b^2)$ b. $5\{2 - 3x + (4 - 5x + 3)\}$

7. Evaluate

a) $\square + 25 = -12$

b) $14 + \square = 94$

c) $-18 + \square = 2$

d) $9 - \square = -18$

e) $-40 - 40 = \square$

f) $-96 + \square = -104$

8. Arrange in ascending order

a) –21, 20, –22, 15, -15

b) Identify the like terms $8m^2n$, m^2p, $-m^2n$, m^2n^2

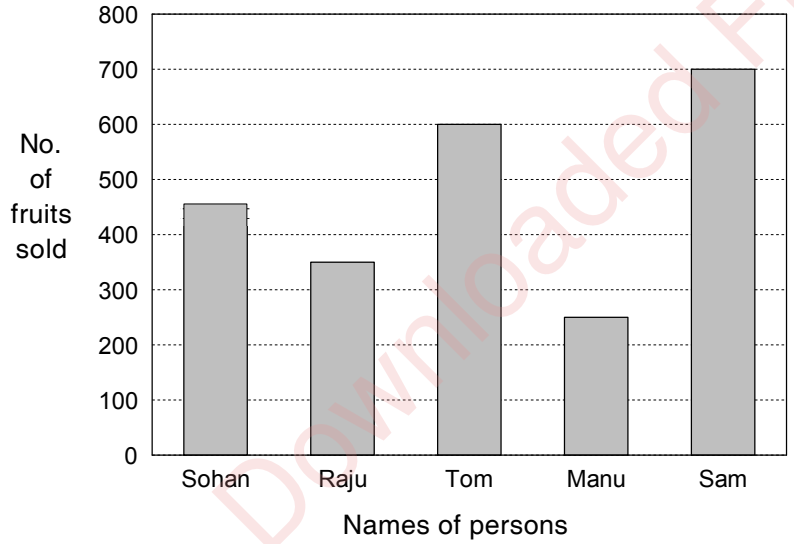
b) The sum of 2 intergers is –56. If one of them is –19 find the other.

9. The marks obtained by a student in various subjects are given below :

Subjects :	English	Hindi	Maths	Science	S. Studies
Marks :	70	75	80	95	60

Represent the data by drawing a bar graph.

10. Read the bar graph and answer the following questions



a. Who sold the maximum number of fruits?

b. How many fruits did Raju sell?

c. Who sold 450 fruits?

d. What amount would Tom get if he sold each fruit for Rs. 20?

e. What was the total number of fruits sold?

f. Who made the least profit?

SECTION C (16 Marks)

Do not copy the questions. Make columns for statements, values and working. Highlight the answers. (4x4=16)

1. John went to the market with Rs. 500. He ate an ice cream for Rs. 112.80. He purchased a video game for Rs. 83.25 and paid Rs. 8 for his auto fare. Find the amount left with him.

2. The audience at a school function occupies 5 rows of the seats in an auditorium. There are 540 people present. How many seats are there in the auditorium.

3. Surbhi purchased 4kg 400g rice, 3 kg 20 gm wheat and 6 kg 850gm sugar. Find the total weight of her purchases.

4. The marks scored by 10 students in Mathematics test as follows :

45, 50, 34, 36, 45, 36, 32, 30, 50, 40

Find the value of (a) arithmetic mean (b) median