

Subject – Mathematics

Class – VI

Set - 2

TIME: - 3 Hrs.

M.M.:- 80

Instructions:-

- (i) Read all question carefully before attempting them.
- (ii) All questions are compulsory.
- (iii) Marks are allotted against questions.
- (iv) Write the answers against the space provided.
- (v) Write neatly and clearly.

SECTION – A

Answer the following:

(1 X 5 = 5)

Que.1. Alex is x years old today. 10 years ago Alex's age was?

- (a) $(X-10)$
- (b) $(X+10)$
- (c) $(X/10)$
- (d) $(X*10)$

Que.2. Change $\frac{25}{9}$ to a mixed fraction.

Que.3. An angle whose measure is less than that of a right angle is _____

Que.4. The successor of integer -1 is

- (a) 1
- (b) -2
- (c) 0
- (d) 2

Que.5. x exceeds y by 10 units can be represented by

- (a) $x = 7y$
- (b) $y = x + 7$
- (c) $y = 7x$
- (d) $x = y + 7$

SECTION – B

Answer the following:

(2 X 10 = 20)

Que.6. $-7 + 8 - 21 + (87) =$ _____

- (a) 65
- (b) 67
- (c) 77
- (d) 93

- Que.7.** Find the area of a rectangle with length = 16m, breadth = 14m.
- Que.8.** With PQ of length 6.1 cm as diameter, draw a circle.
- Que.9.** Write the letters of the word 'MATHEMATICS' which have no line of symmetry.
- Que.10.** Anna is standing on a rock that is 7 feet above sea level. She jumps off the rock. She hits another rock 3 feet below and then walks 2 feet down. How many feet did she come down?
- Que.11.** The temperature on a certain morning is -11°C at 5 a. m. If the temperature drops 3 degree at 6 a.m. and rises 5 degree at 8 a.m. and again drops 3 degree at 9 a.m. What is the temperature at 9 a.m.?
- Que.12.** Represent the following fractions on a number line:
 $1/4$, $7/4$, $-3/4$ and $-9/4$
- Que.13.** Mike buys some electronic goods from a wholesaler for \$650 and spends \$100 on its transportation's, etc. If he sells these electronic goods for \$900; find the profit or loss made by him and express it as percent.
- Que.14.** 420 articles are divided among A, B and C, such that A gets three-times of B and B gets five-times of C. Find the number of articles received by B.
- Que.15.** Find, m, if 7, 14, m are in continued proportion.

SECTION – C

Answer the following:

(3 X 5 = 15)

- Que.16.** The length and breadth of a rectangular field are in the ratio 3:2 the cost of covering the field at Rs.6.50 per meter is Rs.520. Find the dimension of the field.
- Que.17.** Use the number line and the following integers
- (a) $(-5) + 10$
 - (b) $(-1) + (-2) + (-3)$
 - (c) $(-2) + 8 + (-4)$

Que.18. A wire of length $\frac{7}{8}$ m is broken into two pieces. If the length of 1 piece is $\frac{1}{4}$ m what is the length of other piece?

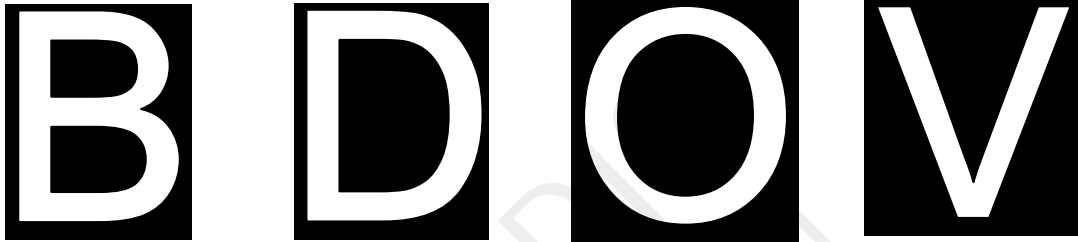
Que.19. Draw the line symmetry for the following English alphabets:

(a)

(b)

(c)

(d)



Que.20. Urmila's school at a distance of 5 km 350m from her home, she travels 1 km 70 m on foot and rest by bus, How much distance does she travel by bus?

SECTION – D

Answer the following:

(4 X 10 = 40)

Que.21. Draw $\angle POQ$ of measure 75° and find its line of symmetry.

Que.22. James purchases an article for \$450 and sold it at 20% loss. Find the loss and selling price of the article.

Que.23. Determine if the following ratios form a proportion. Also, write the middle term and extreme term if the ratio forms a proportion.

(a) 25 cm : 1 m and Rs.40 : Rs.160

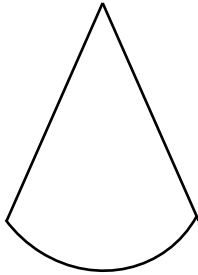
(b) 200 ml : 2.5 litre and Rs.4 : Rs.50

(c) 39 litres : 65 litres and 6 bottles : 10 bottles

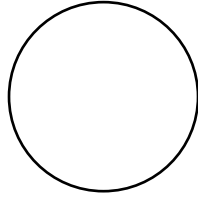
(d) 2 kg : 80 kg and 25 g : 625 g

Que.24. Five square beds each of sides 1 m are dug on a piece of land 5 m long and 4 m wide. What is the area of remaining part of land?

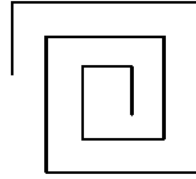
Que.25. Examine whether the following are polygons. If anyone among them is not, state why?



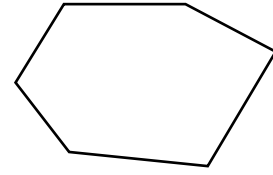
(a)



(b)



(c)



(d)

Que.26. Pick out the solution from the values given in the bracket next to each equation. Show that the other values do not satisfy the equation.

- (a) $7n = 63$ (10, 9, 7, 5)
(b) $p - 10 = 10$ (0, 20, 5, -5)
(c) $m + 14 = 30$ (12, 16, 20, 0)
(d) $\frac{q}{3} = 4$ (9, 6, 18, 12)

Que.27. Susan, Emma and Jessica are climbing the steps to the hill top. Susan is at step s , Emma is 8 steps ahead and Jessica 7 steps behind. Where are Emma and Jessica? The total number of steps to the hill top is 10 less than 4 times what Susan has reached. Express the total number of steps using s .

Que.28. Rahul bought 4 kg 90 g of apples, 2 kg 60 g of grapes and 5 kg 300 g of mangoes. Find the total weight of all the fruits he bought.

Que.29. Draw any angle with vertex O . Take a point A on one of its arms and B on another such that $OA = OB$. Draw the perpendicular bisectors of \overline{OA} and \overline{OB} . Let them meet at P . Is $PA = PB$.

Que.30. Draw a line l and a point X on it. Through X , draw a line segment \overline{XY} perpendicular to l . Now draw a perpendicular to \overline{XY} at Y . (Use ruler and compass).