Subject – Mathematics

Class – VI

Set - 1

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. The greatest prime factor of 35 is _____

    (a) 11   (b) 7   (c) 5   (d) 35

Que.2. How many lines can pass through two given points?

    (a) Infinite   (b) 2   (c) 1   (d) 25

Que.3. Arrange the following in descending order:

    1652, 62131, 6311, 86322

Que.4. 5 is the _____ of 6 (predecessor/successor)

Que.5. Find the product by suitable rearrangement:

    4 * 56 * 25

SECTION – B

Answer the following: **(2 X 10 = 20)**

Que.6. Simplify $\frac{1}{2} + \frac{2}{3} + \frac{3}{4}$

Que.7. The ratio of 81 : 108 is same as

    (a) 9 : 14   (b) 3 : 4   (c) 4 : 3   (d) 12 : 5

Que.8. Shikha is rowing a boat due north west. In which direction will she be rowing if she turns it through:

   (a) Straight angle

   (b) A complete angle

Que.9. Find the equivalent fraction of $\frac{3}{4}$ having numerator 24.

Que.10. Write all the integers between -7 and 3.

Que.11. The sum of two integers is -6. If one of them is 2, then the other is?

Que.12. How many right angles do you make if you start facing

   (a) South and turn to north?

   (b) South and turn clockwise to west?

   (c) North and turn anti-clockwise to east?

   (d) West and turn to west?

Que.13. A box contains 2,00,000 medicine tablets each weighing 20 mg. What is the total weight of all the tablets in the box in grams and in kilograms?

Que.14. Draw a rough sketch of a regular hexagon. Connecting any three of its vertices, draw a triangle. Identify the type of triangle you have drawn.

Que.15. Write the following numbers with appropriate signs :

   (a) 100 m below sea level.

   (b) 25°C above 0°C temperature.

<u>SECTION – C</u>

Answer the following: **(3 X 5 = 15)**

Que.16. By arranging the like terms together and then add.

   (a) 5x + 3y, 4x – 4y + z and -3x + 5y + 2z

   (b) 3a2 + ab – b2, -a2 + 2ab + 3b2 and 3a2 – 10ab + 4b2

Que.17. 20 apples are distributed between Aaron and Ben in the ratio 2 : 3. Find, how many does each get?

Que.18. Present age of father is 42 years and that of his son is 14 years. Find the ratio of

(a) Present age of father to the present age of son.
(b) Age of the father to the age of son, when son was 12 years old.
(c) Age of father after 10 years to the age of son after 10 years.
(d) Age of father to the age of son when father was 30 years old.

Que.19. A piece of string is 120 cm long. What will be the length of each side if the string is used to form:
(a) a regular pentagon
(b) a square
(c) a regular hexagon
(d) a equilateral triangle

Que.20. The population of 4 major cities in India in a particular year is:

City	Mumbai	Kolkata	Delhi	Chennai
Population (in lakhs)	120	130	110	80

Construct a bar graph to illustrate the above data.

SECTION – D

Answer the following: (4 X 10 = 40)

Que.21. Find the rule which gives the number of matchsticks required to make the following matchstick patterns. Use a variable to write the rule.

(a) A pattern of letter V as
(b) A pattern of letter A as
(c) A pattern of letter S as
(d) A pattern of letter T as

Que.22. (a) Which is larger $\frac{3}{4}$ or $\frac{5}{12}$?

(b) Compare $\frac{7}{8}$ and $\frac{5}{6}$

Que.23. (a) The town newspaper is published every day. One copy has 12 pages. Everyday 12,280 copies are printed. Find how many total pages are printed every day?

(b) A vessel contains 3 l and 500 ml of milk. Find in how many glasses, each of 35 ml capacity, can it be filled?

Que.24. Draw an angle of 40°. Copy its supplementary angle.

Que.25. Write each of the following as a decimal.

(a) $200 + 30 + 5 + \dfrac{2}{10} + \dfrac{9}{100}$
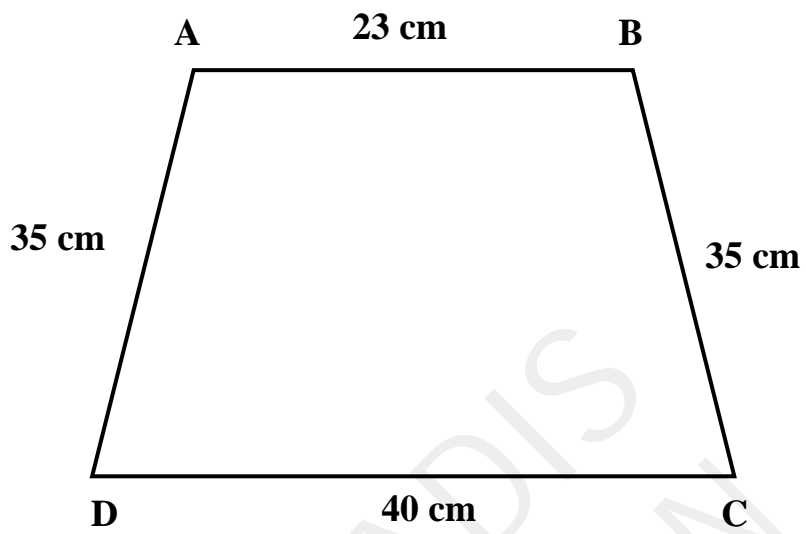
(b) $50 + \dfrac{1}{10} + \dfrac{6}{100}$

(c) $16 + \dfrac{3}{10} + \dfrac{5}{1000}$

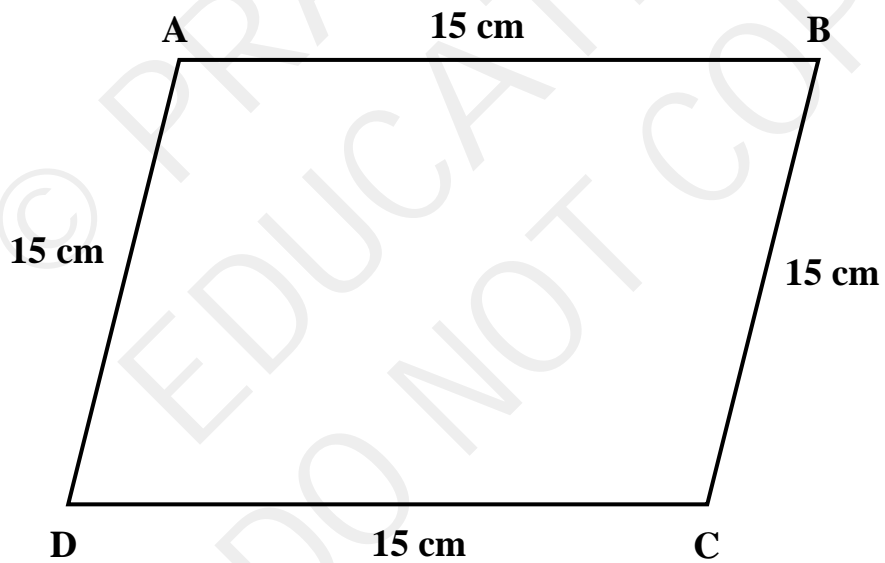**Que.26.** Draw the perpendicular bisector of XY whose length is 10.3 cm.

(a) Take any point P on the bisector drawn. Examine whether PX = PY.

(b) If M is the mid point XY, what can you say about the lengths MX and XY?

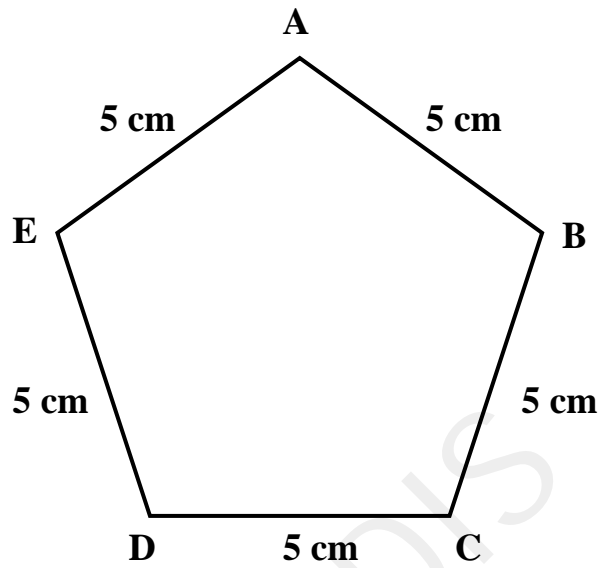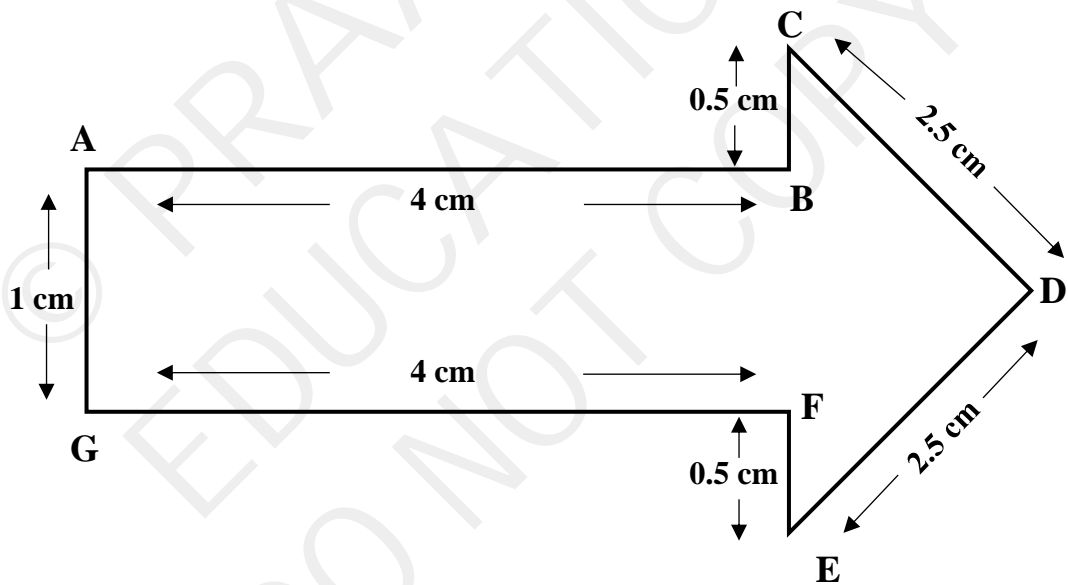**Que.27.** Find the perimeter of each of the following figure:

(a)

A ——— 23 cm ——— B

35 cm   35 cm

D   40 cm   C

(b)

A ——— 15 cm ——— B

15 cm   15 cm

D   15 cm   C

(c)

(d)

Que.28. Tell the angle between the hands of clock when it is-

    (a) 3 O'clock

    (b) 7 O'clock

    (c) 9 O'clock

    (d) 12 at the Midnight

Que.29. Take Sarita's present age to by y years

(a) What will be her age 5 years from now?

(b) What was her age 3 years back?

(c) Sarita's grandfather is 6 times her age. What is the age of her grandfather?

(d) Grandmother is 2 years younger than grandfather. What is grandmother's age?

(e) Sarita's father's age is 5 years more than 3 times Sarita's age. What is her father's age?

Que.30. Draw a rough sketch of a quadrilateral HOPE. State:

(a) A pair of opposite sides

(b) A pair of opposite angles

(c) A pair of adjacent sides

(d) A pair of adjacent angles