MATHEMATICS

Time : 3 hrs **Class VI 2017-18** **M.M. :80**

General Instructions –

- This question paper is divided into four sections A, B, C and D.
- SECTION A consists of 6 questions of 1 mark each. Attempt all questions.
- SECTION B consists of 6 questions of 2 marks each.
- SECTION C consists of 12 questions of 3 marks each. Answer any 10 questions
- SECTION D consists of 9questions of 4marks each. Answer any 8 questions
- Draw neat diagram wherever required.
- Show the required calculations in fair.
- Please check that this question paper contains 03 printed pages.

SECTION A

(All questions are compulsory)

1. 6 less than 2 is = …….

2.Write $\frac{12}{52}$ in simplest form.

3.5 mm = …….cm

4.Area of a rectangle = ……

5.Find the rule which gives the number of matchsticks required to make a pattern of the letter E.

6.A ……. represents a data through picture of objects.

SECTION B

(All questions are compulsory)

7.Construct $\overline{AB}$ of length 7.8 cm. From this, cut off $\overline{AC}$ of length 4.7 cm. Measure $\overline{BC}$

8.Distances travelled by Hamid and Akhtar in an hour are 9 km and 12 km. Find the ratio of speed of Hamid to the speed of Akhtar.

9. Give expressions for the following-

i) y multiplied by 10 and then 7 added to the product

ii) 25 added to r.

10.Find the cost of fencing a rectangular park of length 175 m and breadth 125 m at the rate of Rs 12 per metre.

11.Write as fractions in lowest terms- i) 0.06 ii) 0.25

12. Rafiq exercised for $\frac{3}{6}$ of an hour, while Rohit exercised for $\frac{3}{4}$ of an hour.Who exercised for a longer time ?

SECTION C

(Answer any 10 questions)

13. Find the perimeter of a regular hexagon with each side measuring 8m.

14.Check whether the given fractions are equivalent or not(show the required calculation)-

$\frac{5}{9}, \frac{30}{54}$

15. Express $\frac{35}{9}$ as a mixed fraction.

16. Subtract 314 g from 2.107 kg.

17. Make a table and enter the data using tally marks-

3,2,5,4,1,3,2,2,5,3,1,2,1,1,2,2,3,4,5,3,1,2,3

18.Find the sum of –

(-8) + (-12) – (-15) + 20

19.How many tiles of length 12 cm and breadth 5 cm are required to fit in an rectangular region of length 144 cm and breadth 100 cm ?

20. A rectangular box has height h cm. Its length is 5 times the height and breadth is 10 cm less than the length. Express the length and the breadth of the box in terms of the height.

21. Form any 6 expressions using y, t and 7. Every expression must have y in it. Use only two number operations. These should be different.

22.Determine if the following is in proportion: 25 cm: 1 m and Rs.4o : Rs.160.

23. Construct 45° using ruler and compass.

24.Draw a line segment of length 7.4 cm and construct its perpendicular bisector using ruler and compass.

SECTION D

(Answer any 8 questions)

25. A piece of wire $\frac{7}{8}$ m long broke into two pieces. One piece was $\frac{1}{4}$ m long. How long is the other piece?

26. Astha travels 20 km 50 m everyday. Out of this she travels 10 km 200 m by bus and the rest by auto. How much distance does she travel by auto ?

27. Draw a bar graph to represent the following data on consumption of electricity in Delhi from 2001 to 2010.

Year	2001	2003	2005	2007	2010
Electricity(MW)	2800	3400	3600	4400	4500

Also write the value promoted here.

28. The area of a rectangular garden 50 m long is 300 sq m. Find the width of the garden.

29. Pick out the solution from the values given in the bracket. Also, show that the other values do not satisfy the equation.

x + 4 = 2, (-2, 0, 2, 4)

30. Divide 20 pens between Sheela and Sangeeta in the ratio 3:2.

31.Fill in the blank spaces with $>, <$ or = sign: (also show the required calculation).

a) (-25) – (-42) ……. (-42) – (-25)

b) 45 –(-11) …… 57 + (-24)

32 The cost of 4 dozen bananas is Rs. 60. How many bananas can be purchased for Rs.12.50 ?

33. 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 ?

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