SAMPLE PAPER – SA-II

[SESSION 2016-2017]

MATHEMATICS

CLASS VI

DURATION: 3 HOURS **M. Marks: 90**

GENERAL INSTRUCTIONS:

- ***Attempt all the questions***
- ***Question paper consists of four sections – A, B, C, D***
- ***Section A consists of Q1-Q4 of 1 mark each.***
- ***Section B consists of Q5-Q10 of 2 marks each.***
- ***Section C consists of Q11-Q20 of 3 marks each.***
- ***Section D consists of Q21-Q31 of 4 marks each.***
- ***Draw neat figures with ruler and pencil where ever required.***

SECTION A

Q1. Write the expanded form of 31.005

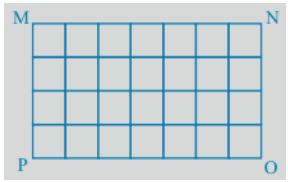
Q2. Express 10kg to 300gms in terms of ratio.

Q3. The perimeter of a regular pentagon is 1540cm. How long is its each side?

Q4. Convert into algebraic expression: The product of x and y is subtracted from twice the sum of x and y.

Q5. Mary and Lucy have cupboards of the same size partly filled with dresses. Mary's cupboard is $\frac{5}{6}$ th full and Lucy's cupboard is $\frac{2}{5}$ th full. Whose cupboard is more full?

Q6. A rectangular wall MNOP is covered with square tiles, side of each square tile being 2cm. Find the area of the wall.



Q7. Convert the following into algebraic expressions:

a) The product of p and q from which 7 is subtracted
b) 3 times z is taken away from 21

Q8. Write an equivalent fraction of $\frac{2}{9}$ with denominator 45.

Q9. A farmer has a rectangular field of length and breadth 240m and 180m respectively. He wants to fence it with 4 rounds of rope. What is the total length of rope he must use?

Q10. Find the ratio of 50 minutes to 2.5 hours and simplify it.

SECTION C

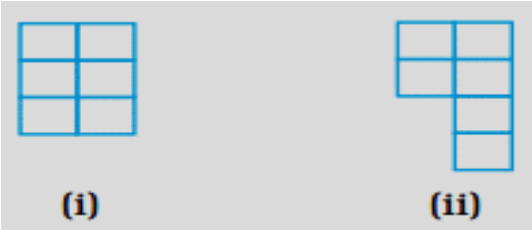
Q11. Rupa runs around a square park of side 85m. Priya runs around a rectangular park of length 75m and width 60m. Who covers less distance and by how much?

Q12. Find the value of p: $\frac{3}{7} = \frac{p}{84}$

Q13.Out of 30 students in a class, 6 like cake, 12 like muffins and the remaining like donuts. Find the ratio of :

a) Number of students liking cake to the number of students liking donuts.
b) Number of students liking muffins to the total number of students.

Q14. Following figures are formed by joining six unit squares. Find the perimeter of both the figures and state which figure has a smaller perimeter and by how much.



Q15. Add the fractions and express the answer as a mixed fraction: $2\frac{4}{7}$ and $\frac{3}{49}$

16. Fill in the following blanks:

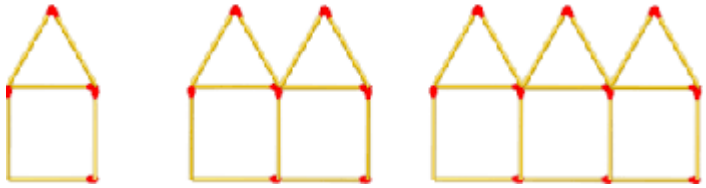
$\frac{10}{5} = \frac{\square}{4} = \frac{4}{\square} = \frac{\square}{7}$

Q17. A class with p students has planned a picnic. Rs.50 per student is collected, out of which Rs.2100 is paid in advance for transport. How much money is left with them to spend on other items?

Q18. What is the answer when the sum of 9.125 and 12.36 is subtracted from the sum of 25.2 and 103.167?

Q19. Maya wants to divide Rs.36 between Siya and Jiya in the ratio of their ages. If Siya's age is 15years and that of Jiya is 12 years, find out the amount they both will get.

Q20.Find the general rule which represents the formation of the figure given below. Mention all the necessary steps required to generate the formula.



SECTION D

Q21. Arrange the following in descending order $\frac{7}{8}, \frac{4}{5}$, $\frac{3}{4}$.

Q22. Shefali bought two pieces of ribbon measuring 8 $\frac{1}{6}$ m and 5 $\frac{3}{4}$ m respectively. She used 9 $\frac{2}{3}$ m of

it on her dress. How much ribbon is left with her? Write the answer in mixed fraction.

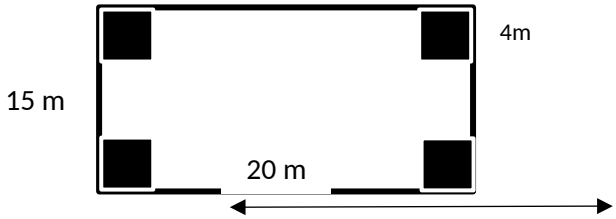
Q23. Find four equivalent fractions of (i) $\frac{8}{9}$ and (ii) $\frac{7}{11}$.

Q24. A wire is cut into several small pieces. Each of the small pieces is bent into a square of side 2cm.

If the total area of the small squares is 28 square cm, what is the original length of the wire?

Q25.How many tiles of length and breadth 10 cm and 3 cm will be needed to fit in a rectangular region whose length and breadth are 500 cm and 144cm respectively?

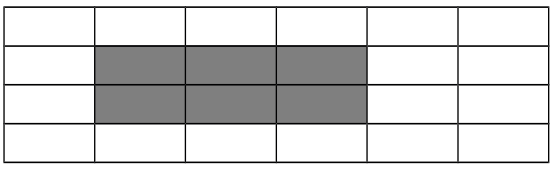
Q26. In a garden of sides measuring 20m and 15m, four square flower beds have been made at the four corners. If the side of each flower bed is 4m, find the area of the remaining part of the garden.



Q27. Aman bought 2kg 40g of apples, 3kg 70g of grapes and 4kg 200g of mangoes. Find the total weight of all the fruits he bought. Express your answer in kilograms.

Q28. A bus travels at v km per hour. It is going from Point A to Point B. After the bus has travelled 5 hours, Point B is still 20km away. What is the distance from Point A to Point B? Express it using v.

Q29.In the below figure, the side of each small square is equal to 1 cm. Find the ratio of the perimeter of the boundary of the shaded portion to the perimeter of the whole figure .



Q30. Esha earns Rs.32000 in 4 months. Answer the following:

(a) How much money does she earn in one year?
(b) In how many months will she earn Rs.88000?

Q31. Pick out the solution from the values given in the brackets next to the equation. Show that the other values do not satisfy the equation.

$p - 5 = 5$ (0,10,5,-5)