Question Paper SA-II
2014-2015
CBSE Class VIII Mathematics

General Instruction:

- The questions paper has been divided into 4 sections.
- Sec A contains 10 questions of 1 mark each
- Sec B contains 8 questions of 2 marks each
- Sec C contains 8 questions of 3 marks each
- Sec D contains 4 questions of 5 marks each
- Internal choices have been provided in some questions. Attempt only one option in such questions.
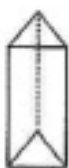
SECTION A

1 Find the sum of $5- 2x^2 + 4x$ and $5x^2 – 3x – 4$

2 The difference between the upper and lower class limit is called .... of the class-interval.

3 In histogram, the height of the bars show the .... of class-intervals.

4 Number of faces in the given figure are ....

5 Surface area of a cube ....

6 Find the area of a rhombus whose diagonals are of length 10 cm and 8.2 cm.

7 Simplify: $\dfrac{3^{-2}}{4}$

8 A point whose y-coordinate is zero and x-coordinate is 7 will lie on ....

9 Find the common factors of the given terms: $6abc, 24ab^2, 12a^2b$

10 'Time taken to cover a distance' and speed of the car' are said to be in ....
proportion.

SECTION B

11 A bag has 5 blue cards, 2 orange cards and 4 red cards. A card is drawn from the bag without looking into the bag. What is the probability of getting.

a) a red card?

b) a non-blue card?

12 Find the product : $\left(-\dfrac{5}{4}m^2n\right) \times \left(\dfrac{6}{25}mn^2\right)$

13 The weekly wages (in Rs.) of 30 workers in a factory are given below. Using tally marks, make a frequency table with intervals as 800-810, 810-820 and soon.

804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840, 830, 835, 890, 810, 835, 863, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845

14 Using Euler's formula, find the unknown:

Faces	?	20
Vertices	6	?
Edges	9	30

15 The area of a trapezium is 34 cm2 and the length of one of the parallel sides is 10 cm and its height is 4 cm. Find the length of the other parallel side.
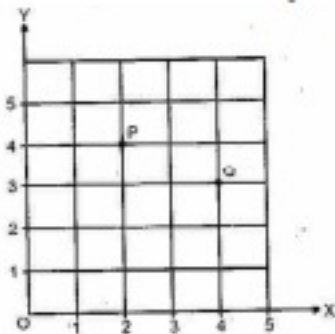
16 Find the height of a cuboid whose volume is 275 cm^2 and base area is 25 cm^2.

17 Factorize:$(2a + 3)^2 – 9b^2$

OR

Find the factors of $y^2 - 7y + 12$

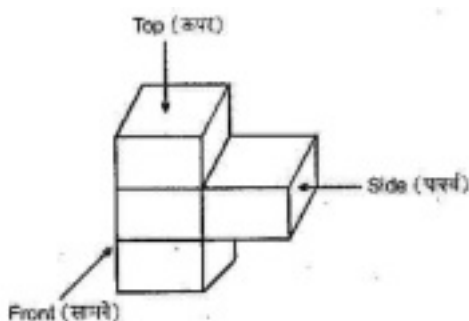18. Write the coordinates of the points 'P' and 'Q'

SECTION C

19 Draw a pie chart showing the following information. The table shows the colours preferred by a group of people.

Colours	Blue	Green	Red	Yellow	Others
No. of people	15	12	9	6	3

20 Find the value of $(3° + 4^{-1}) ÷ 2^2$

21 Show that: $(4p^q + 3^q)^2 - 4(4p^q - 3^q)^2 = 48p^{q^2}$

22 Draw the top view, front view and side view of the given solid.

23 Find the height of a cylinder whose radius is 7 cm and the total surface area is 968 cm^2

24. Find the area of the quadrilateral PQRS shown in this figure.
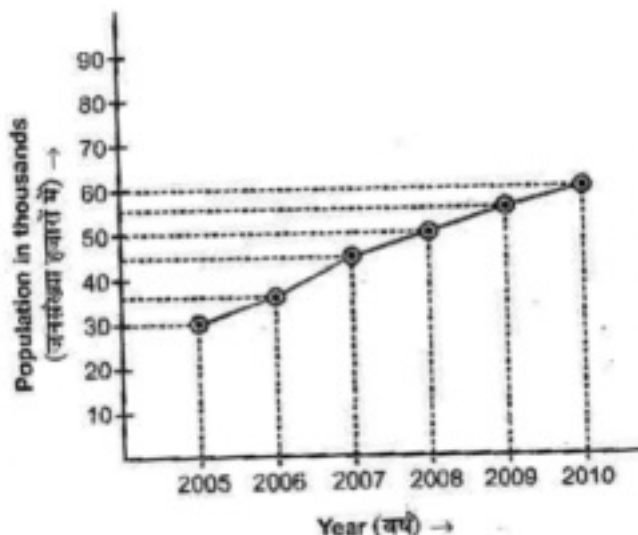
25. Draw the line passing through (4,2) and (2,4) find the coordinates of the points at which

this line meets the x-axis and y-axis.

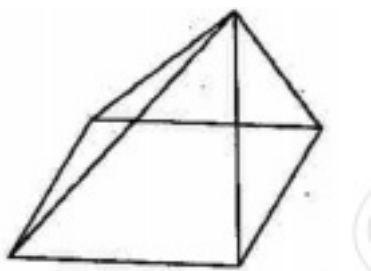26. The graph shows the population of the city in 2007.

a) What was the population of the city in 2007?

b) How many people lived in the city on an average during the six years?

SECTION D

27. Write the Euler's formula and verify it for this figure.

28 The internal measures of a cuboidal room are12m × 8m × 4m. Find the total cost of whitewashing all four wall of a room, if the cost of whitewashing is Rs. 6 per m². What will be the cost of white-washing.

OR

A rectangular paper of width 14 cm is rolled along its width and a cylinder of radius 30 cm is formed. Find the volume of the cylinder. $\left(Taken\ \pi\ \dfrac{22}{7} \right)$

29 A tree 15 metres high, casts a shadow of 10 metres. Find the height of an electric pole that casts a shadow of 15 metres under similar conditions.

OR

Factorize the expressions and divide them as directed: $(m^2 - 14m - 32) \div (m + 2)$

30 The given data shows the number of accidents in various years of a city:

Year	2009	2010	2011	2012	2013	2014
No. of accidents	2300	2500	2750	3000	3100	3400

a) Represent the data in the form of a line graph.

b) In your opinion, what may be the main cause of accidents?

c) What qualities a driver should imbibe to minimize the no. of accidents?