# KENDRIYA VIDYALAYA SANGATHAN (CHANDIGARH REGION) Class: VIII Subject: Mathematics Session :(2016-17)

**TIME:**  $2\frac{1}{2}$ **HOURS** 

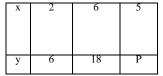
**M.M : 60** 

### **General Instructions:-**

- All questions are compulsory.
- The question paper consists of 26 questions divided into four sections A, B, C and D.Section A contains 8 questions of 1 mark each. Section B contains 6 questions of 2 marks each. Section C contains 8 questions of 3 marks each, Section D contains 4 questions of 4 marks each. Use of calculator is not permitted.
- An additional 15 minutes time has been allotted to read this question paper only.

## Section- A

- 1. Find the product of 4p and 0.
- 2. Evaluate  $(-4)^{-2}$
- 3. What is the total surface area of a cuboid ?
- 4. Observe the table and find the value of P.



- 5. Factorise: 7x-42.
- 6. 00000 00 000000 00 0000000 00000000 **?**

7. 0000 000 0000 00 0

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8. 000 0000 0000 0000 0 0000 ?

### Section-B

- 9. Using identities, evaluate  $102^{2}$ .
- 10. DDD D(D-D) , D(D-D) DDD D(D-D).
- 11. Using Euler's formula, find the unknown: Faces =?, Vertices = 6, Edges = 12

12.000 00000000 00 0 000000 000 7.500 000 1200.0000 000 0000.

13. Plot the following points on a graph sheet.

 $P(1,1), Q(2,2), R(3,3), \Box(4,4)$ 

14. Find the values of the letters in the following and give reasons for the steps involved.

3 A + 2 5 - B 2

Section- C

- 15. Simplify  $(4m+5n)^2 + (5m+4n)^2$
- 16. Can a polyhedron have for its faces
  - (i) 3 triangles?
  - (ii) 4 triangles?

(iii) a square and four triangles?

- 17. A closed cylindrical tank of radius 7m and height 3 m is made from a sheet of metal. How much sheet of metal is required?
- 18. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in five hours ?
- 19. A farmer has enough food to feed 20 animals in his cattle for 6 days. How long would the food last if there were 10 more animals in his cattle? The farmer feeds and keeps his cattle in good condition. What quality of farmer is depicted here?
- 21. If 21y5 is a multiple of 9, where y is a digit, What is the value of y?
- 22. 0000 000 000 00 0 0000 0000  $5^{0}$ ;  $5^{-3}$  =  $5^{5}$ .

### Section- D

- 23. A cuboid is of dimensions 60 cm $\times$  54cm  $\times$  30 cm, How many small cubes with side 6 cm can be placed in the given cuboid ?
- 24. Factorise the expressions and divide as directed.

$$(y^2 + 7y + 10) \div (y + 5)$$

25. The following table represents the distance travelled by a car. Draw the graph for the following table of values, with suitable scale on the axes.

| Time (in hours)  | 6 a.m. | 7 a.m. | 8 a.m. | 9 a.m. | 10 a.m. |
|------------------|--------|--------|--------|--------|---------|
| Distance (in km) | 40     | 80     | 120    | 160    | 200     |

- (i) How much distance did the car cover during the period 8a.m. to 8.30a.m.?
- (ii) What was the time when the car had covered a distance of 100km since it's start?

26. Simplify  $25 \times t^{-4}$  (t  $\ddagger 0$ )  $5^{-3} \times 10 \times t^{-8}$ 

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