

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 .

x	2	6	5
y	6	18	P

5. Factorise: $7x - 42$.
6. $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ । $\frac{1}{2} \times \frac{3}{4}$ का परिणाम $\frac{3}{8}$ है। $\frac{1}{2} \times \frac{3}{4}$ का परिणाम क्या है ?
यदि $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ है, तो $\frac{1}{2} \times \frac{3}{4}$ का परिणाम क्या है ?
7. $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ । $\frac{1}{2} \times \frac{3}{4}$ का परिणाम $\frac{3}{8}$ है। $\frac{1}{2} \times \frac{3}{4}$ का परिणाम क्या है ?
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8. $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ । $\frac{1}{2} \times \frac{3}{4}$ का परिणाम $\frac{3}{8}$ है। $\frac{1}{2} \times \frac{3}{4}$ का परिणाम क्या है ?

Section- B

9. Using identities, evaluate 102^2 .
10. $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ । $\frac{1}{2} \times \frac{3}{4}$ का परिणाम $\frac{3}{8}$ है। $\frac{1}{2} \times \frac{3}{4}$ का परिणाम क्या है ?
11. Using Euler's formula, find the unknown:
Faces = ? , Vertices = 6, Edges = 12

12. $1200.0000 \times 7.500 = 9000.0000$

13. Plot the following points on a graph sheet.

P(1,1), Q (2, 2), R(3,3), S(4,4)

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

$$\begin{array}{r} 3A \\ + 25 \\ \hline B2 \\ \hline \end{array}$$

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?

20. $10^4 - 10^4 = 0$

21. If $21y5$ is a multiple of 9, where y is a digit, What is the value of y?

22. $5^4 \div 5^{-3} = 5^7$

Section- D

23. A cuboid is of dimensions $60 \text{ cm} \times 54 \text{ cm} \times 30 \text{ cm}$, 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 $\frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}}$ $(t \neq 0)$
