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Education as a Service (EaaS)

Sample Question Paper - SET 1

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Class	XII	Subject	Mathematics (041)
Chapter	8 - Application of Integrals	Time Allowed	12 Minutes
Maximum Marks	6	Date	_____

GENERAL INSTRUCTIONS:

1. This question paper contains **3 questions** from Chapter 8 - Application of Integrals.
2. All questions are compulsory.
3. Question 1 carries **1 mark** (MCQ).
4. Question 2 carries **2 marks**.
5. Question 3 carries **3 marks**.
6. Show all steps of your calculations clearly with proper diagrams where needed.
7. Use proper mathematical notation and terminology.
8. **IMPORTANT:** Drawing rough sketch is compulsory for area problems - marks may be deducted if missing.

HOW TO SUBMIT:

1. Solve this question paper in your notebook or on loose sheets.
2. Clearly write your **Name, CBSE Roll Number, School Name, Place, and Date** on the first page.

3. Upload your solved paper at our website: **www.mathlove.in**
4. Check your **detailed report card on the website** after evaluation.
5. For any queries or assistance, WhatsApp us at **+91-7869553517**

SECTION A - 1 MARK QUESTION (MCQ) (1 × 1 = 1 Mark)

Q1. The area bounded by the parabola $y^2 = 4ax$ and its latus rectum is:

(A) $4a^2/3$ square units

(B) $8a^2/3$ square units

(C) $2a^2/3$ square units

(D) $16a^2/3$ square units **[1]**

SECTION B - 2 MARKS QUESTION (1 × 2 = 2 Marks)

Q2. Find the area of the region bounded by the curve $y^2 = 9x$, $x = 2$, $x = 4$ and the x-axis in the first quadrant. **[2]**

SECTION C - 3 MARKS QUESTION (1 × 3 = 3 Marks)

Q3. Using integration, find the area of the region bounded by the parabola $y^2 = 4x$ and the line $y = 2x$. (Draw a rough sketch also) **[3]**