

# MHT CET 2026 April 15 Shift 2

## Question Paper

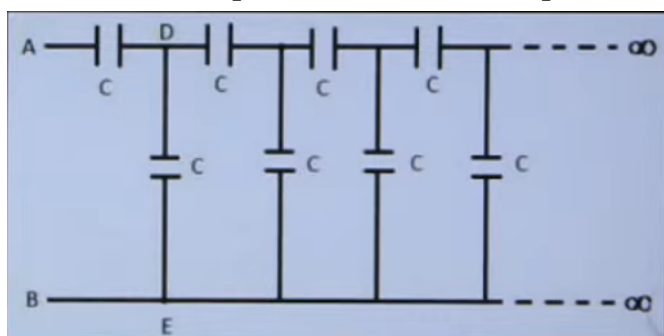
Conducted by CET Cell, Maharashtra



### General Instructions

- (i) **Duration:** The total duration of the examination is 3 hours (180 minutes).
- (ii) **Total Marks:** The complete paper carries a maximum of 200 marks.
- (iii) **Structure:** The paper has 3 Sections:
  - **Section A:** 50 Multiple Choice Questions (Physics)
  - **Section B:** 50 Multiple Choice Questions (Chemistry)
  - **Section C:** 50 Multiple Choice Questions (Mathematics)
- (iv) **Compulsory Questions:** All 150 questions are compulsory.
- (v) Each question has four options. Only **one** option is correct.
- (vi) **Right Answer:** Physics (+1 marks), Chemistry (+1 marks) and Mathematics (+2 marks).
- (vii) **Incorrect Answer:** (No Negative marking).
- (viii) **Unanswered/Marked for Review:** 0 marks.

1. The capacitance of an infinite circuit formed by the repetition of the same link consisting of two identical capacitors, each with capacitance  $C$ , as shown in the figure is:



(A) Zero

(B)  $\frac{(\sqrt{5}-1)C}{2}$

(C)  $\frac{(\sqrt{5}+1)C}{2}$

(D) Infinite

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**2. Evaluate the integral:**

$$\int_3^5 |x-4| dx$$

(A) 1

(B) 2

(C) 3

(D) 4

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**3. A 1.5 kg block is attached to a spring with spring constant  $k = 100 \text{ N m}^{-1}$  and displaced by 0.2 m. Calculate the potential energy stored in the spring.**

(A) 1 J

(B) 2 J

(C) 3 J

(D) 4 J

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**4. What product is formed when a ketone reacts with hydrazine ( $\text{NH}_2 - \text{NH}_2$ )?**

(A) Alcohol

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(B) Hydrazone

(C) Amide

(D) Ester

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**5. Evaluate the definite integral:**

$$\int_0^{\frac{\pi}{2}} \sin^2 x \, dx$$

(A)  $\frac{\pi}{2}$

(B)  $\frac{\pi}{4}$

(C)  $\frac{\pi}{8}$

(D)  $\pi$

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