# CUET 2026 May 29 Shift 2 Physics

## Question Paper (Memory-Based)

Conducted by National Testing Agency (NTA)

### General Instructions

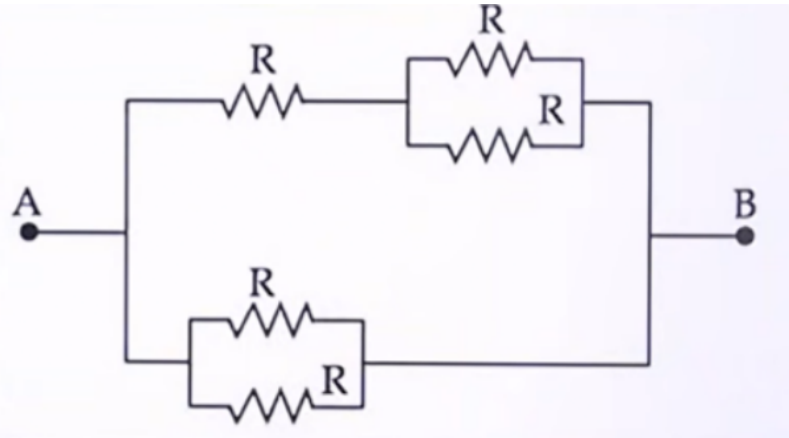
**(i)** The examination will be conducted in Computer-Based Test (CBT) mode.

**(ii)** Each question carries +5 marks for correct answer and -1 mark for wrong answer.

**(iii)** The total number of questions are 50.

**(iv)** Duration of the exam is 1 hour (60 minutes).

**1. Five resistors, each of resistance $R$, are connected between points $A$ and $B$ as shown in the figure. The equivalent resistance between $A$ and $B$ is:**




(A) $\frac{3R}{8}$
(B) $5R$
(C) $\frac{8R}{3}$
(D) $2R$

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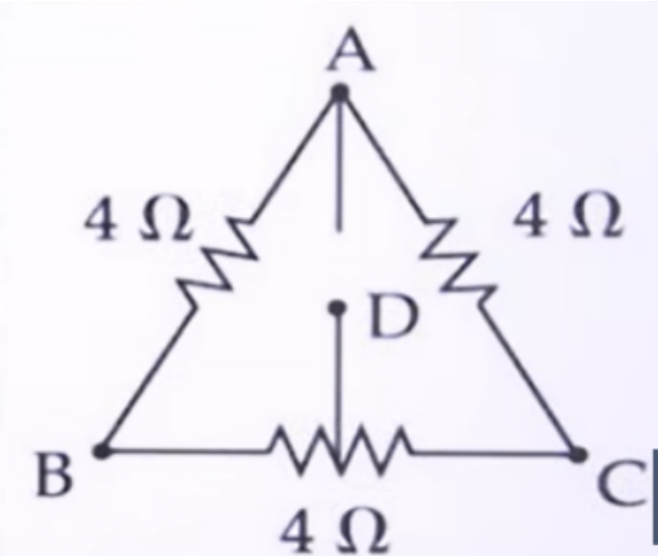
**2. In the figure shown, three resistors of $4\Omega$ are connected. If point $D$ divides the resistor between $B$ and $C$ into two equal parts, then the equivalent resistance between points $A$ and $D$ is:**




(A) $12\,\Omega$

(B) $6\,\Omega$

(C) $3\,\Omega$

(D) $\frac{1}{3}\,\Omega$

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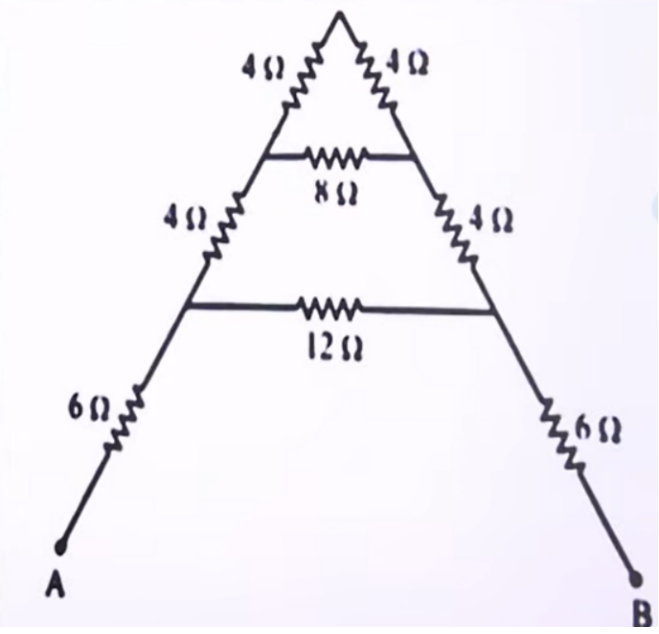
**3. For the given mixed combination of resistors, calculate the total resistance between points *A* and *B*.**




(A) $9\,\Omega$

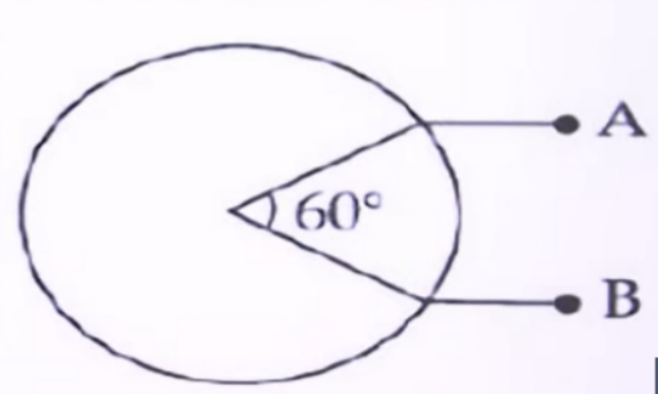
(B) $18\,\Omega$

(C) $4\,\Omega$

(D) $14\,\Omega$

**4. A wire of uniform cross-sectional area and resistivity has total resistance $36\,\Omega$ and is bent into a circle as shown in the figure. The equivalent resistance between points $A$ and $B$ is:**




(A) $6\,\Omega$

(B) $5\,\Omega$

(C) $30\,\Omega$

(D) $42\,\Omega$

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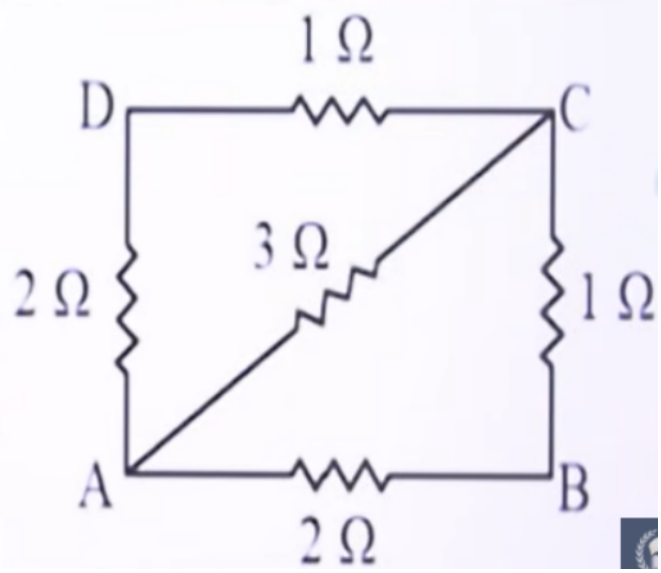
**5. The equivalent resistance of the following combination of resistances between $A$ and $C$ is:**




(A) $36\,\Omega$

(B) $1\,\Omega$

(C) $27\,\Omega$

(D) $3\,\Omega$

**6. A straight wire of mass $200\,\text{g}$ and length $1.5\,\text{m}$ carries a current of $2\,\text{A}$. It is suspended in mid-air by a uniform horizontal magnetic field $B$. The magnitude of $B$ is ($g = 10\,\text{m s}^{-2}$):**

(A) $2\,\text{T}$

(B) $1.5\,\text{T}$

(C) $0.55\,\text{T}$

(D) $0.67\,\text{T}$

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**7. A straight wire of mass $500\,\text{g}$ and length $7\,\text{m}$ carries a current of $1.4\,\text{A}$. It is suspended in mid-air by a uniform horizontal magnetic field $B$ perpendicular to the length of the wire. The magnitude of the magnetic field is:**

(A) $3.5\,\text{T}$

(B) $0.7\,\text{T}$

(C) $0.5\,\text{T}$

(D) $2.5\,\text{T}$

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**8. If a straight wire of length $175\,\text{cm}$ and mass $250\,\text{g}$ is suspended freely in a uniform horizontal magnetic field of $0.7\,\text{T}$, then the current flowing through the wire is:**

(A) $20\,\text{A}$

(B) $0.02\,\text{A}$

(C) $2\,\text{A}$

(D) $0.2\,\text{A}$

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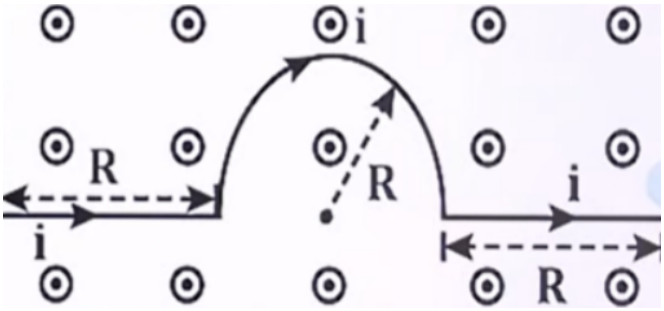
**9. A wire carrying current $i$, bent as shown in the figure, is placed in a uniform magnetic field $B$ directed normally out of the plane of the figure. The force on the wire is:**




(A) $4BiR$, directed vertically downward

(B) $3BiR$, directed vertically upward

(C) $Bi(2R + \pi R)$, directed vertically downward

(D) $2BiR$, from $P$ to $Q$

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**10. The most exotic diamagnetic materials are superconductors. They exhibit perfect diamagnetism and perfect conductivity. The values of magnetic susceptibility ($\chi$) and relative permeability ($\mu_r$) for such materials are:**

(A) $\chi = 1,\ \mu_r = 0$

(B) $\chi = -1,\ \mu_r = 0$

(C) $\chi = 0,\ \mu_r = 1$

(D) $\chi = -1,\ \mu_r = 1$

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