CUET 2026 May 12 Shift 2 Physics

Question Paper (Memory-Based) PDF

Conducted by National Testing Agency (NTA)

General Instructions

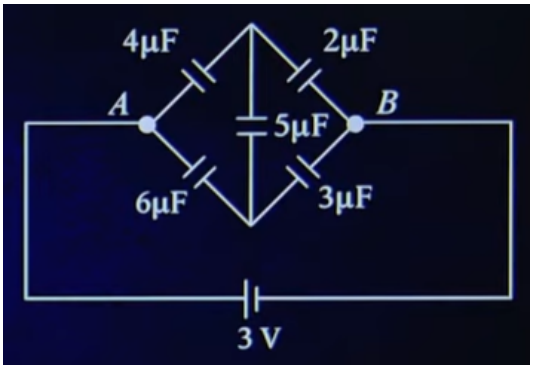
(i) The examination will be conducted in Computer-Based Test (CBT) mode.

(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. A network of five capacitors is shown in the figure. The total charge stored in the network connected between A and B is:



(A) 8 μC

(B) 10 μC

(C) 9 mC

(D) 10 mC

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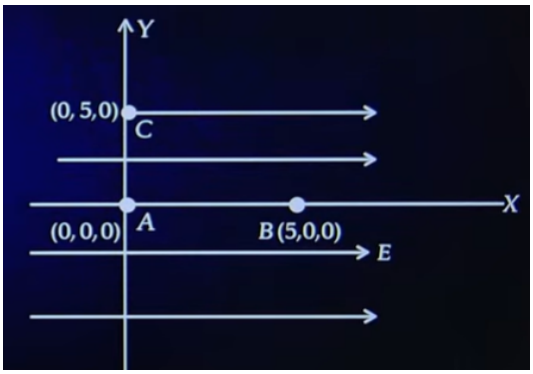
2. In a certain region, a uniform electric field exists in the positive x-direction. Let V_A = potential at $(0,0,0)$ cm, V_B = potential at $(5,0,0)$ cm and V_C = potential at $(0,5,0)$ cm. The correct relationship between them is:



(A) $V_A < V_C$ and $V_A = V_B$

(B) $V_A = V_C$ and $V_A > V_B$

(C) $V_A > V_C$ and $V_A = V_B$

(D) $V_A = V_C$ and $V_A < V_B$

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3. A negatively charged object A is repelled by another charged object B. However, an object C is attracted to object B. Which of the following is the most probable for the charge of object C?

(A) neutral or negatively charged

(B) negatively charged only

(C) neutral or positively charged

(D) positively charged only

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4. Two-point charges, $q_1 = 36\ \mu$C and $q_2 = -9\ \mu$C are placed at a distance of 30 cm. What distance from q_1, where the net electric field is zero, will be:

(A) 10 cm

(B) 20 cm

(C) 60 cm

(D) 30 cm

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5. An infinitely long line charge distribution produces a field of 9×10^4 NC^{-1} at a distance of 2 cm. The linear charge density of the distribution is:

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(A) 0.01 μC m^{-1}

(B) 0.1 μC m^{-1}

(C) 1 μC m^{-1}

(D) 2 μC m^{-1}

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6. A body of 20 g and +50 μC charge is suspended from the ceiling by a string. If a horizontal electric field of 10 kV/m is applied, the angle between the string and vertical direction is: (Take $g = 10$ N/kg)

(A) $\tan^{-1}(2.50)$

(B) $\tan^{-1}(3.00)$

(C) $\tan^{-1}(3.50)$

(D) $\sin^{-1}(2.50)$

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7. The transfer of integral number of _____ is one of the evidence of quantisation of electric charge. Fill in the blank with the correct answer from the options given below.

(A) photons

(B) nuclei

(C) electrons

(D) neutron

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8. When a slab of insulating material 4 mm thick is introduced between the plates of a parallel plate capacitor of separation 4 mm, it is found that the distance between the plates has to be increased by 3.2 mm to restore the capacity to its original value. The dielectric constant of the material is _____. Fill in the blank with the correct answer from the options given below.

(A) 2

(B) 5

(C) 3

(D) 7

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9. A copper ball of density 8.0 g/cc and 1 cm in diameter is immersed in oil of density 0.8 g/cc. The charge on the ball if it remains just suspended in oil in an electric field of intensity 600π V/m acting in the upward direction is _____. Fill in the blank with the correct answer from the options given below. (Take $g = 10$ m/s^2)

(A) 2×10^{-6} C

(B) 2×10^{-5} C

(C) 1×10^{-5} C

(D) 1×10^{-6} C

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10. For an electric dipole in a non-uniform electric field with dipole moment parallel to direction of the field, the force F and torque τ on the dipole respectively are _____. Fill in the blank with the correct answer from the options given below.

(A) $F = 0, \tau = 0$

(B) $F \neq 0, \tau = 0$

(C) $F = 0, \tau \neq 0$

(D) $F \neq 0, \tau \neq 0$

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