

NEET Re-Exam 2026 Physics

Question Paper

Conducted by National Testing Agency (NTA)



General Instructions

- (i) The test is of 3 hours and 15 minutes duration.
- (ii) This test paper consists of 180 questions. The maximum marks are 720.
- (iii) Physics and Chemistry contains 45 questions each and Biology (Botany and Zoology) contains 90 questions.
- (iv) Each question carries +4 marks for correct answer and –1 mark for wrong answer.

Physics

1. A photon and an electron, each of 10 eV energy, move in free space. The ratio of linear momentum of electron P_e to that of photon P_{ph} ,

$$\frac{P_e}{P_{ph}}$$

is :

(A) 275

(B) $\frac{2}{450}$

(C) $\frac{1}{250}$

(D) 225

2. Water flows in a streamline motion through a horizontal pipe of circular cross-section

as shown in the figure. The pressure difference of water between P and Q is 15 N m^{-2} . The area of cross-section at P and Q are 40 cm^2 and 20 cm^2 , respectively. The rate of flow of water through the pipe, in $\text{cm}^3 \text{ s}^{-1}$, is:



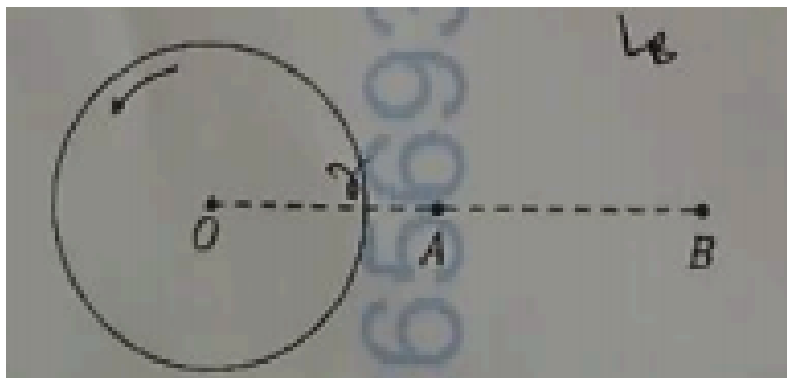
- (A) 400
- (B) 100
- (C) 200
- (D) 300

3. A thin horizontal disc is rotating about a vertical axis passing through its fixed centre O . Its angular momentum is L_A and L_B computed about points A and B , respectively, where $OB = 2 \times OA$.

The value of

$$\frac{L_A}{L_B}$$

is:



- (A) 2
- (B) $\frac{1}{4}$

(C) $\frac{1}{2}$

(D) 1

4. Consider a long solenoid of length l and radius r . If n is the number of turns per unit length and μ_0 is the permeability of free space, the inductance of the solenoid is:

(A) $2\mu_0\pi n^2 r^2 l$

(B) $\mu_0\pi n^2 r^2 l$

(C) $\mu_0 n^2 r^2 l$

(D) $\left(\frac{\mu_0}{2\pi}\right) n^2 r^2 l$

5. The temperature of a metallic sphere of radius R is increased by a small amount ΔT . If the linear coefficient of thermal expansion of the metal is α , the approximate increase in the volume of the sphere is:

(A) $6\pi R^3 \alpha \Delta T$

(B) $2\pi R^3 \alpha \Delta T$

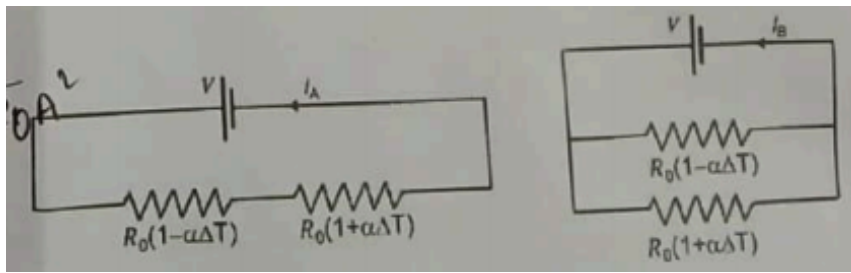
(C) $3\pi R^3 \alpha \Delta T$

(D) $4\pi R^3 \alpha \Delta T$

6. Consider two circuits, (A) and (B), each having two resistors. One of them has a positive temperature coefficient of resistance, $+\alpha$, while the other one has a negative temperature coefficient of resistance, $-\alpha$, as shown in the figure. The current through these circuits are denoted by I_A and I_B .

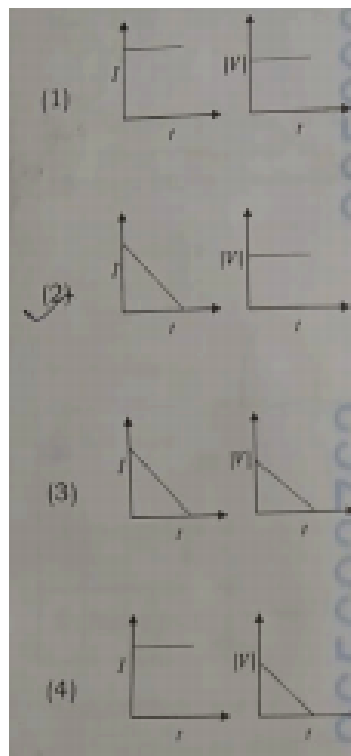
At initial temperature, the resistance of the two resistors is R_0 .

As the temperature is increased, the correct option that describes the variation of current in these circuits is:



- (A) Both I_A and I_B remain constant
- (B) I_A remains constant while I_B increases
- (C) I_A decreases while I_B increases
- (D) I_A increases while I_B decreases

7. A beam of light falls on a metal surface such that photo-electrons are generated. If the power of the light source starts to decrease linearly with time, then the variation of the photocurrent I and magnitude of the stopping potential $|V|$ with time is best represented by :



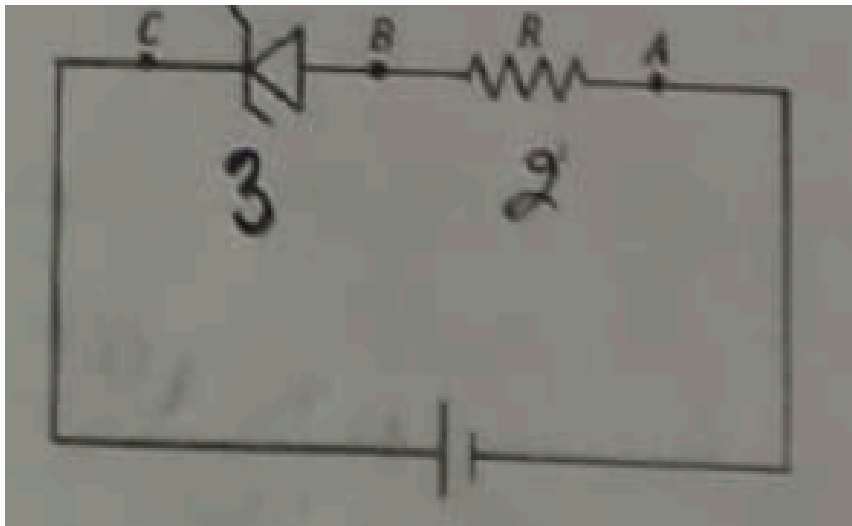
- (A) $I = \text{constant}$, $|V| = \text{constant}$

(B) I decreases linearly with time, $|V|$ remains constant

(C) I decreases linearly with time, $|V|$ also decreases linearly with time

(D) $I = \text{constant}$, $|V|$ decreases linearly with time

8. In the measurement of viscosity of liquids using terminal velocity experiment, spherical balls of same radius but having different densities are used. The variation of the terminal velocity (v) with the ratio of density of spherical ball (σ) to density of the liquid (ρ), is best represented by:



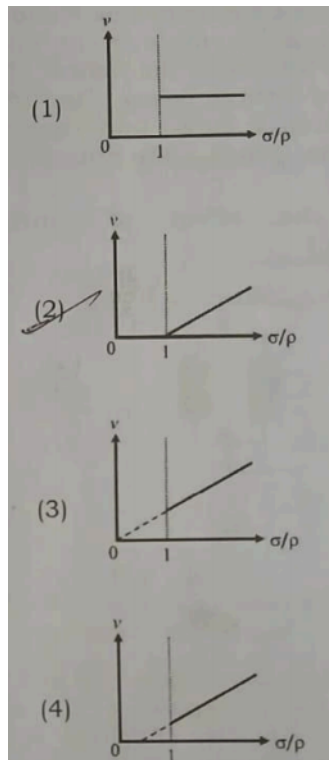
(A) Graph passing through the origin

(B) Straight line having positive slope and non-zero intercept

(C) Parabolic curve

(D) Hyperbolic curve

9. An ideal Zener diode with breakdown voltage of 3V is reverse biased with a negative input voltage $V_1 = -5V$. The magnitude of voltage difference between points B and A is:



- (A) 0V
- (B) 3V
- (C) 2V
- (D) 1V

10. Two planets P_1 and P_2 with equal mass have radii R_1 and R_2 , respectively, where

$$R_2 = \frac{R_1}{2}$$

The escape speeds of P_1 and P_2 are v_1 and v_2 , respectively. Then the value of

$$\frac{v_2}{v_1}$$

is:

- (A) 2

(B) $\frac{1}{\sqrt{2}}$

(C) 1

(D) $\sqrt{2}$

11. An AC voltage

$$V = 220 \sin(2 \times 10^3 t) \text{ Volt}$$

is applied to a series LCR circuit. Then the current amplitude in the circuit is:

Given:

$$L = 10 \text{ mH}, \quad C = 25 \mu\text{F}, \quad R = 100 \Omega$$

(A) 22.0 A

(B) 2.2 A

(C) 5.5 A

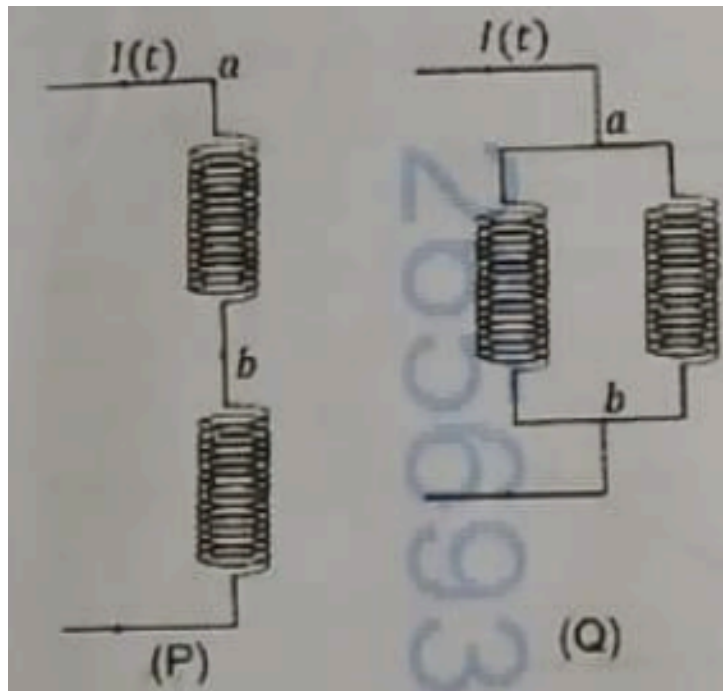
(D) 11.0 A

12. Two identical inductors are connected in two different configurations P and Q , where a time varying current $I(t)$ is flowing, as shown in the figure.

If the induced emf between points a and b for configuration P is E_P and that for configuration Q is E_Q , then the ratio

$$\frac{E_P}{E_Q}$$

is:

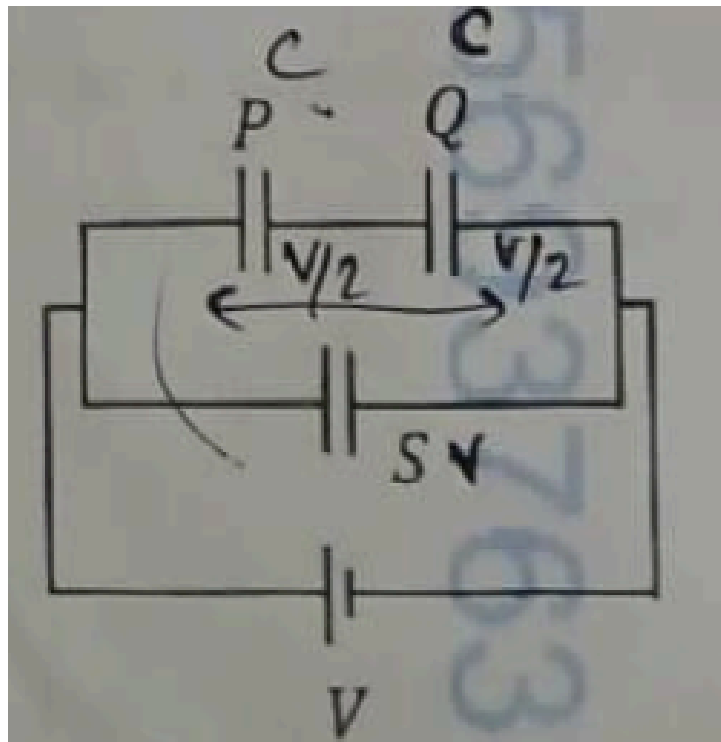


- (A) 1
- (B) $\frac{1}{4}$
- (C) $\frac{1}{2}$
- (D) 4

13. Three identical capacitors P , Q and S , each of capacitance C , are connected to a battery of voltage V , as shown in the figure. If the potential energy stored in the capacitor P and total energy stored in the system are U_P and U_T , respectively, then the ratio

$$\frac{U_P}{U_T}$$

is:

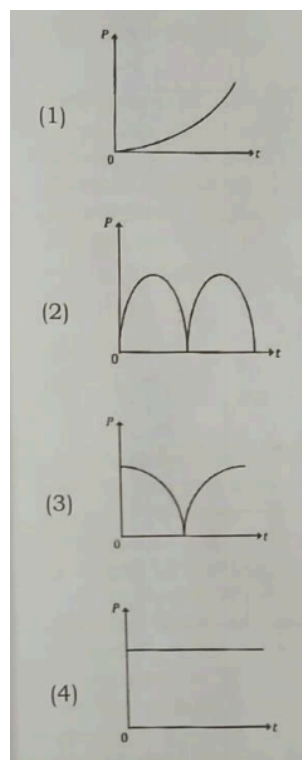


- (A) $\frac{1}{6}$
- (B) $\frac{2}{3}$
- (C) $\frac{1}{3}$
- (D) $\frac{1}{2}$

14. A conducting loop of finite resistance lies on the $x - y$ plane. There is a constant magnetic field in the y -direction. The area of the loop varies with time t as

$$A = A_0(1 + \sin t)$$

The figure that correctly indicates the qualitative behaviour of the power dissipated in the loop as a function of time is:



- (A) Increasing curve
- (B) Repeated positive humps touching zero periodically
- (C) V-shaped curve
- (D) Constant power

15. In an adiabatic expansion, the temperature of one mole of an ideal monoatomic gas ($\gamma = \frac{5}{3}$) decreases from 60 K to 50 K. The work done by the gas in the process is: (Take the universal gas constant as $R = 8.3 \text{ J mol}^{-1} \text{ K}^{-1}$)

- (A) 166 J
- (B) 41.5 J
- (C) 83 J
- (D) 124.5 J

16. Consider a particle moving along a straight line, whose position as a function of time is given by

$$s(t) = \alpha t^2 - \beta t + \gamma$$

where $\alpha = 1 \text{ m s}^{-2}$, $\beta = 6 \text{ m s}^{-1}$ and $\gamma = 5 \text{ m}$. The average speed of the particle, in m s^{-1} , from $t = 0$ to $t = 6 \text{ s}$ is:

- (A) 0
 - (B) 12
 - (C) 6
 - (D) 3
-

17. The following table presents the part of the electromagnetic spectrum and their corresponding major applications. Match the following and choose the correct option.

Part of Spectrum		Applications	
<i>P</i>	Microwave	<i>I</i>	For purifying water
<i>Q</i>	UV rays	<i>II</i>	For warming food
<i>R</i>	Gamma rays	<i>III</i>	For AM and FM communication systems
<i>S</i>	Radio waves	<i>IV</i>	Cancer cells treatment

- (A) P-II, Q-IV, R-III, S-I
 - (B) P-I, Q-II, R-III, S-IV
 - (C) P-I, Q-IV, R-II, S-III
 - (D) P-II, Q-I, R-IV, S-III
-

18. An ideal gas is made of polyatomic molecules. Each molecule has three translational, three rotational and f number of vibrational modes. If the ratio of heat capacities

$$\frac{C_p}{C_v} = \frac{8}{7}$$

then the value of f is:

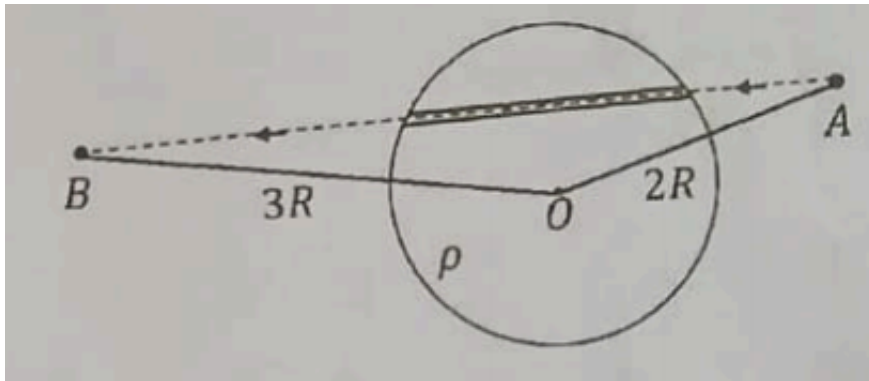
- (A) 1
-

- (B) 4
- (C) 3
- (D) 2

19. A unit positive point charge is slowly moved through an infinitely thin tube inside a uniformly charged dielectric sphere of radius R and volume charge density ρ . The initial and final positions of the charge are B and A , located at distances $3R$ and $2R$ respectively from the centre. If the magnitude of work done on the charge is

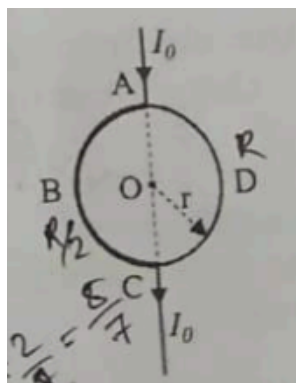
$$\frac{\rho R^2}{n\epsilon_0}$$

then find n .



- (A) 18
- (B) 2
- (C) 6
- (D) 9

20. A current I_0 flows through a metallic circular loop of radius r as shown. The resistance of arc ABC is half that of arc ADC . Find the magnetic field at the centre O .



- (A) $\frac{\mu_0 I_0}{6r}$
 (B) $\frac{\mu_0 I_0}{2r}$
 (C) $\frac{\mu_0 I_0}{12r}$
 (D) $\frac{\mu_0 I_0}{4r}$

21. Bob B of mass m at rest is hanging vertically from the ceiling by a massless string of length 10 m , as shown in the figure. Point mass A of mass m travelling horizontally with speed 10 m s^{-1} collides with the bob B elastically. The bob B rises to a height h after the collision. Taking acceleration due to gravity $g = 10\text{ m s}^{-2}$ and neglecting the size of the bob, the value of h is:

- (A) 2.5 m
 (B) 8 m
 (C) 7 m
 (D) 5 m

22. An electromagnetic wave travelling in a lossless dielectric medium having a dielectric constant,

$$\epsilon_r = 9,$$

has the electric field

$$E_x = E_0 \sin(kz - 2\pi \times 10^6 t) \text{ V m}^{-1}$$

where E_0 is the amplitude and k is the wave vector. Among the following options, the incorrect choice is:

- (A) The direction of propagation of the electromagnetic wave is along $+z$
 (B) The speed of the electromagnetic wave inside the medium is 10^8 m s^{-1}

(C) The wavelength of the electromagnetic wave inside the medium is 300 m

(D) The magnetic field is given by

$$B_y = \frac{E_0}{v} \sin(kz - 2\pi \times 10^6 t)$$

23. A particle of mass M moves along the horizontal x -axis from $x = 0$ to $x = L$. The coefficient of kinetic friction varies as

$$\mu_k(x) = \frac{\mu_0}{L} x$$

where μ_0 and L are constants. If the total work done by friction during the motion is

$$-\frac{\mu_0 M g L}{n}$$

where g is the acceleration due to gravity, find n .

(A) $\frac{1}{2}$

(B) 3

(C) 1

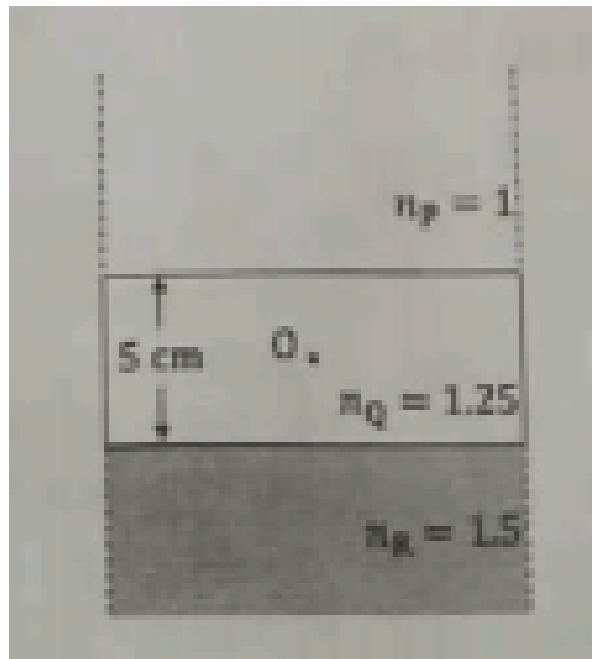
(D) $\frac{1}{3}$

24. Consider three media P , Q and R with refractive indices

$$n_P = 1, \quad n_Q = 1.25, \quad n_R = 1.5$$

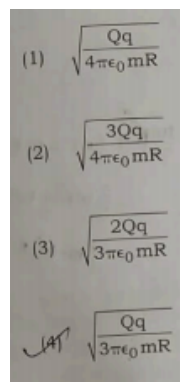
respectively. Medium Q has a thickness of 5 cm and is placed between media P and R as shown. An object O is placed at the centre of medium Q . If viewed from medium P near the normal direction, the apparent depth of O is h_1 . For the same object viewed from medium R , the apparent depth is h_2 . Find

$$|h_1 - h_2|.$$



- (A) 3 cm
- (B) 0 cm
- (C) 1 cm
- (D) 2 cm

25. Consider a fixed uniformly charged insulating sphere with radius R and total charge $+Q$. A point charge $-q$ ($q \ll Q$) with mass m is released from rest at a distance of $3R$ from the centre of the charged sphere. When the point charge reaches the surface of the sphere, its speed is:

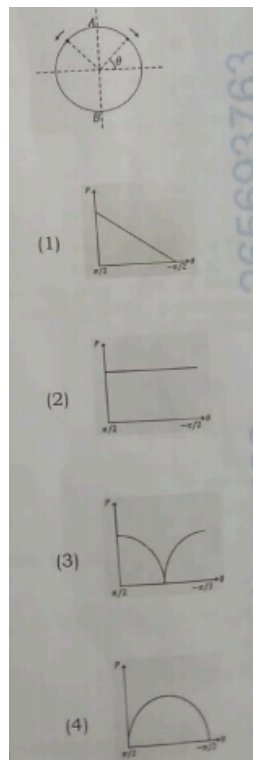


- (A) $\sqrt{\frac{Qq}{4\pi\epsilon_0 mR}}$
- (B) $\sqrt{\frac{3Qq}{4\pi\epsilon_0 mR}}$
- (C) $\sqrt{\frac{2Qq}{3\pi\epsilon_0 mR}}$
- (D) $\sqrt{\frac{Qq}{3\pi\epsilon_0 mR}}$

26. A car travels on a circular racetrack of radius 50 m, which is banked at an angle θ . If the car travels at a speed 10 m s^{-1} , then the wear and tear on its tyres is minimum. Taking $g = 10 \text{ m s}^{-2}$, the value of θ is:

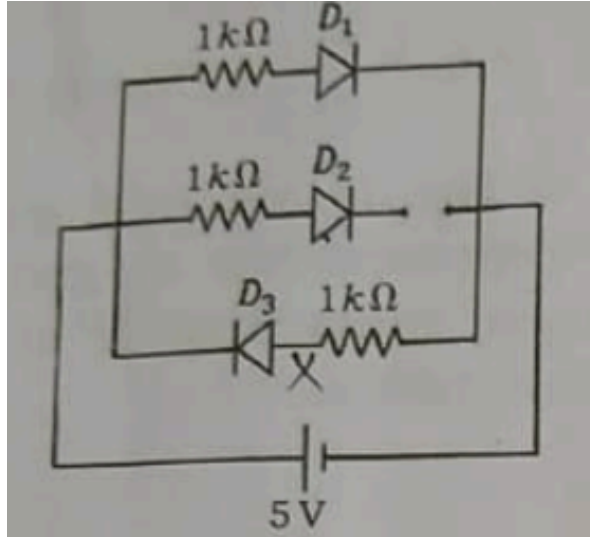
- (A) $\tan^{-1}(2\sqrt{3})$
- (B) $\tan^{-1}\left(\frac{1}{5}\right)$
- (C) $\tan^{-1}\left(\frac{2}{5}\right)$
- (D) $\tan^{-1}\left(\frac{\sqrt{3}}{2}\right)$

27. A frictionless circular wire of unit radius is fixed on a horizontal plane. Two point particles of unit mass start moving simultaneously from point A ($\theta = \pi/2$) with identical uniform angular speeds in opposite directions and meet again at point B. During this time, which graph correctly represents the magnitude of total linear momentum P of the system as a function of time?



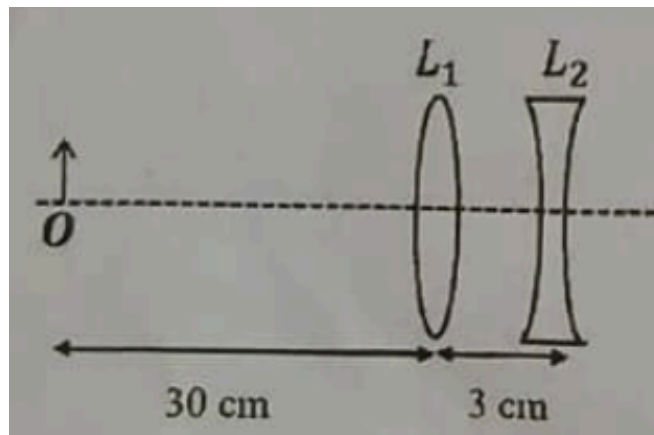
- (A) Sine shaped graph
- (B) Cosine shaped graph
- (C) V-shaped graph
- (D) Linear graph

28. Three identical p-n junction diodes D_1 , D_2 and D_3 are connected across a battery as shown in the figure. If the widths of the depletion regions of D_1 , D_2 and D_3 are W_1 , W_2 and W_3 , respectively, then the correct option is:



- (A) $W_2 > W_1 = W_3$
- (B) $W_1 > W_2 > W_3$
- (C) $W_3 = W_1 > W_2$
- (D) $W_3 > W_2 > W_1$

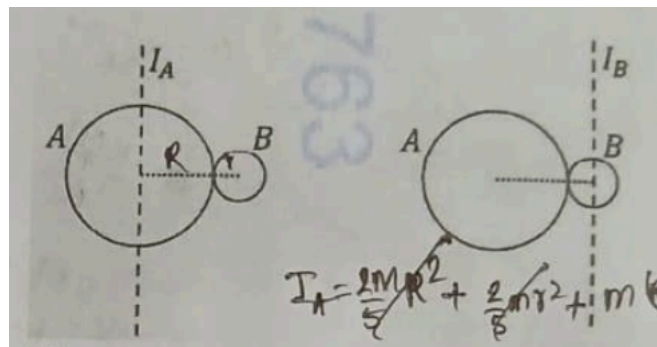
29. The lens combination as shown consists of two thin lenses L_1 and L_2 of focal lengths $+10$ cm and -10 cm, respectively. The object is placed 30 cm to the left of L_1 , and the distance between the two lenses is 3 cm. The position of the image formed is:



- (A) 60 cm to the right of the concave lens

- (B) 20 cm to the left of the concave lens
 (C) 60 cm to the left of the concave lens
 (D) 30 cm to the right of the concave lens

30. A solid sphere A of radius R and mass M is attached to a smaller solid sphere B of radius r ($r < R$) and mass m ($m < M$). The centres lie on the same horizontal line. The moments of inertia about the vertical axes passing through the centres of A and B are I_A and I_B , respectively. The value of $I_A - I_B$ is:



- (A) $(M - m)(R + r)^2$
 (B) $(M - m)(R - r)^2$
 (C) $(m - M)(R + r)^2$
 (D) $(m - M)(R - r)^2$

31. Consider that an electron is revolving in an excited state of Hydrogen atom with velocity

$$\sqrt{25.6} \times 10^5 \text{ ms}^{-1}.$$

The radius of the orbit is $x \times 10^{-9}$ m. The value of x is : [Take mass of electron = 9×10^{-31} kg, charge of electron = -1.6×10^{-19} C and

$$\frac{1}{4\pi\epsilon_0} = 9 \times 10^9 \text{ Nm}^2\text{C}^{-2}$$

- (A) 1
 (B) 4
 (C) 3

(D) 2

32. The mean free path of molecules in an ideal gas A is half that of another ideal gas B. The diameter of the spherical molecules of gas A is twice the diameter of the molecules of gas B. If number densities of the gases A and B are n_A and n_B , respectively, then the correct option is:

(A) $n_A = \frac{1}{2}n_B$

(B) $n_A = n_B$

(C) $n_A = 2n_B$

(D) $n_A = \frac{1}{4}n_B$

33. A cylindrical cork of uniform density ρ_1 floats in a liquid of density ρ_1 . If the cork is depressed slightly and released, it oscillates harmonically with time period T . If the same cork floats in another liquid of density ρ_2 , then the similar oscillation has time period $2T$. The value of $\frac{\rho_2}{\rho_1}$ is:

(A) $\frac{1}{4}$

(B) 4

(C) 2

(D) $\frac{1}{2}$

34. For sound waves, if the number of nodes for the 5th harmonic of an open-ended pipe is n and that for the 9th harmonic of the same pipe with one of its ends closed is m , the ratio n/m is:

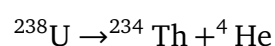
(A) $\frac{3}{5}$

(B) $\frac{9}{5}$

(C) $\frac{5}{9}$

(D) 1

35. Consider the nuclear reaction



Take masses of ^{238}U , ^{234}Th , and ^4He as

$$238.050 u, \quad 234.043 u, \quad 4.003 u$$

respectively. The Q -value for the reaction, in keV, is:

$$1u = 931.5 \text{ MeV}/c^2$$

- (A) 3740
 - (B) 3726
 - (C) 3730
 - (D) 3736
-

36. Which of the following measurements has the highest index of correction?

- (A) Measurement of speed of sound using resonance tube
 - (B) Measurement of resistance of a wire using meter bridge
 - (C) Measurement of gravitational acceleration using simple pendulum
 - (D) Measurement of focal length of lenses using optical bench
-

37. In a solar system, the time period of revolution of a planet tracing a circular orbit of radius R is proportional to:

- (A) R^3
 - (B) $R^{1/2}$
 - (C) $R^{3/2}$
 - (D) R^2
-

38. Consider that σ_s , k_B , and b represent Stefan-Boltzmann constant, Boltzmann constant, and Wien's displacement law constant, respectively. The dimension of $\sigma_s k_B^{-1} b$ is:

- (A) $[L^{-1}T^{-1}K^{-4}]$
 - (B) $[L^{-1}T^{-1}K^{-2}]$
 - (C) $[L^{-1}K^{-2}]$
 - (D) $[L^{-1}T^{-1}K^{-3}]$
-

39. A ray of light with wavelength λ is incident on three different photoelectric cells. The threshold wavelengths are λ_1 , λ_2 , and λ_3 , and the magnitudes of stopping potentials are V_1 , V_2 , and V_3 , respectively. If

$$\lambda_1 \leq \lambda, \quad \lambda_2 > \lambda, \quad \lambda_3 \gg \lambda$$

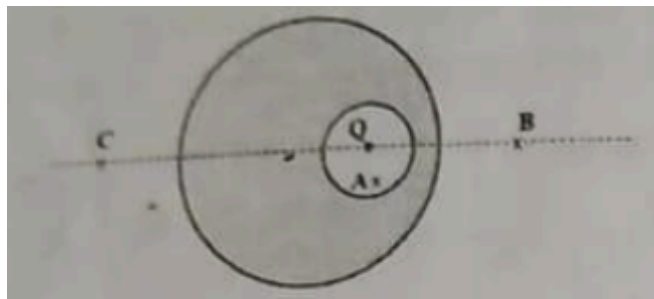
the correct option is:

- (A) $V_1 < V_2, V_3 = 0$
 - (B) $V_1 = 0, V_2 < V_3$
 - (C) $V_1 > 0, V_2 = 0, V_3 = 0$
 - (D) $V_1 > V_2, V_3 = 0$
-

40. One main scale division (MSD) of a Vernier calliper is 1 mm and the Vernier scale has 10 divisions. When the jaws touch, the Vernier scale shifts to the left and the 4th Vernier division coincides with a main scale division. If the measured length is 1 cm, the actual length is:

- (A) 1.04 cm
 - (B) 0.60 cm
 - (C) 0.96 cm
 - (D) 1.00 cm
-

41. A point charge Q is placed inside a cavity within a solid isolated conducting sphere. Consider points A , B , and C as shown in the figure, where the magnitudes of the electric fields are E_A , E_B , and E_C respectively. The points B and C are at the same distance from the center of the solid sphere. The correct option is:

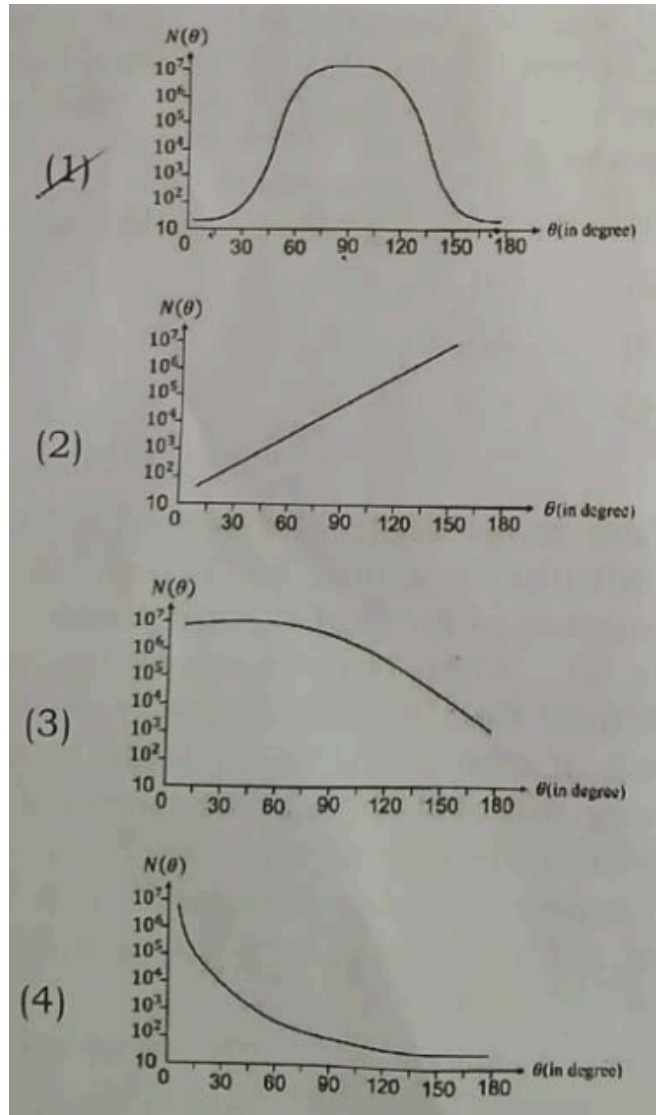


- (A) $E_A \neq 0, E_B < E_C$
- (B) $E_A = 0, E_B = E_C$

(C) $E_A \neq 0, E_B = E_C$

(D) $E_A = 0, E_B > E_C$

42. In the Geiger-Marsden experiment, the number of scattered α -particles $N(\theta)$ is plotted as a function of scattering angle θ . Which of the following options represents the correct plot?



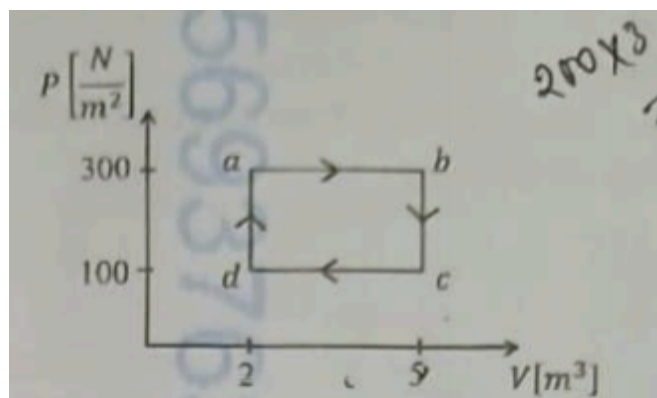
(A) Graph (1)

(B) Graph (2)

(C) Graph (3)

(D) Graph (4)

43. One mole of an ideal monatomic gas undergoes a cyclic process as shown in the figure. The total heat supplied to the gas is:



- (A) 800 J
- (B) 400 J
- (C) 500 J
- (D) 600 J

44. Two infinitely long parallel conducting wires A and B carry currents I and $2I$, respectively, in the same direction. Wire A lies on an insulated floor while wire B is fixed at a height h above the floor. The minimum value of h so that wire A does not rise from the floor is:

- (A) $\frac{4\mu_0 I^2}{\pi \lambda g}$
- (B) $\frac{\mu_0 I^2}{2\pi \lambda g}$
- (C) $\frac{\mu_0 I^2}{\pi \lambda g}$
- (D) $\frac{2\mu_0 I^2}{\pi \lambda g}$

45. Consider a spring-mass simple harmonic oscillator in one dimension. The mass of the particle is m kg and the spring constant is k N m⁻¹. At a given instant, the extension of the spring is x metre and the speed of the particle is v m s⁻¹. On the $x - v$ plane, if the graph of v as a function of x is a circle, then the correct option is:

- (A) $k = \sqrt{m}$
- (B) $k = \frac{1}{m}$
- (C) $k = m$
- (D) $k = m^2$