JEE MAIN April'19

PAPER WITH SOLUTION

9 April 2019 _ Morning _ Physics

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Q.1 The total number of turns and across-section area in a solenoid is fixed. However, its length L is varied by adjusting the separatoin between windings. The inductance of solenoid will be proportional to :

(1) $\frac{1}{L^2}$ (2) L^2 (3) L (4) $\frac{1}{L}$

Sol. **4**

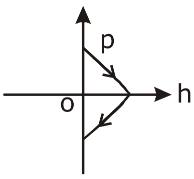
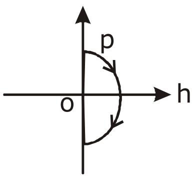
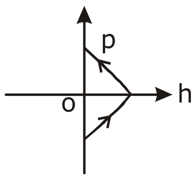
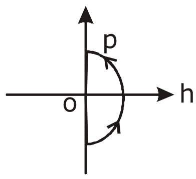
Self Inductance of solenoid = $= \mu_0 n^2 Al$

$\therefore \frac{L}{l} = \mu_0 n^2 \pi r^2 = \mu_0 \frac{N^2}{l^2} \pi r^2$

$\Rightarrow \boxed{L = \frac{\mu_0 N^2 \pi r^2}{l}}$

$\therefore \boxed{L \propto \frac{1}{l}}$

Q.2 A ball is know id thrown vertically up (taken as + z - axis) from the ground. The correct momentum -height (p-h) diagram is :

(1)  (2)  (3)  (4) 

Sol. **2**

Velocity of particle at some height :

$v^2 - u^2 = 2as$

$\Rightarrow v = \sqrt{u^2 + 2gh}$

Hence momentum $= m\sqrt{u^2 + 2gh}$

$p^2 = m^2u^2 + 2m^2gh$

$\therefore$ Option (2)

P first decreases and then increases.

Q.3 The Following bodies are made to roll up (without slipping) the same inclined plane from a horizontal plane : (i) a ring of radius R, (ii) a solid clyinder of radius $\frac{R}{2}$ and (iii) a solid sphere of radius $\frac{R}{4}$. If in each case, the speed of the centre of mass at the bottom of the incline is same, the ratio of the maximum heights they climb is :

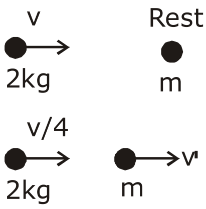
(1) 2: 3: 4 (2) 14: 15: 20 (3) 4: 3: 2 (4) 10: 15: 7

Sol. **4**

Q.4 A body of mass 2 kg makes an elastic collision with a second body at rest and continues to move in the original direction but with one fourth of its original speed. What is the mass of the second body ?

(1) 1.2 kg (2) 1.8 kg (3) 1.0 kg (4) 1.5 kg

Sol. **1**



from linear momentum conservation

$$2v = \frac{2v}{4} + mv'$$

$$\Rightarrow 2v - \frac{v}{2} = mv'$$

$$\Rightarrow mv' = \frac{4v - v}{2}$$

$$\Rightarrow mv' = \frac{3v}{2} \;.......(i)$$

$$e = 1 = \frac{v_2 - v_1}{u_1 - u_2}$$

$$\Rightarrow u_1 - \cancel{u_2}^{0} = v_2 - v_1$$

$$\Rightarrow v = v' - \frac{v}{4}$$

$$\Rightarrow \boxed{v' = \frac{5v}{4}} \;.......(ii)$$

$$\therefore m\frac{5v}{4} = \frac{3v}{2}$$

$$\Rightarrow m = \frac{6}{5}\,kg = 1.2\,kg$$

Q.5. A signal $A\cos\omega t$ is transmitted using $\upsilon_0 \sin\omega_0 t$ as carrier wave. The correct amplitude modulated (AM) signal is :

(1) $\upsilon_0 \sin[\omega_0(1 + 0.01A\sin\omega t)t]$

(2) $(\upsilon_0 + A)\cos\omega t \sin\omega_0 t$.

(3) $\upsilon_0 \sin\omega_0 t + A\cos\omega t$

(4) $\upsilon_0 \sin\omega_0 t + \frac{A}{2}\sin(\omega_0 - \omega)t + \frac{A}{2}\sin(\omega_0 + \omega)t$

Sol. **4**

By NCERT

$$\upsilon_0 \sin\omega_0 t + \frac{A}{2}\sin(\omega_0 - \omega)t + \frac{A}{2}\sin(\omega_0 + \omega)t$$

All the Frequencies are present.

Q.6 The electric field of light wave is given as $\vec{E} = 10^{-3}\cos(\frac{2\pi x}{5\times10^{-7}} - 2\pi\times6\times10^{14}t)\hat{x}\frac{N}{C}$ This light falls on a metal plate of work function 2eV. the stopping potential of the photo electrons is :

given, E (in eV) $= \frac{12375}{\lambda(\text{in Å})}$

(1) 2.48 V (2) 2.0 V (3) 0.72 V (4) 0.48 V

Sol. **4**

$[E = E_0\cos(kx - \omega t)]$

$K = \frac{2\pi}{5\times10^{-7}}$

$\therefore \lambda = 5\times10^{-7}\text{m}$

or $\boxed{\lambda = 5000\text{A}^\circ}$

Now $E_{Phot} = \frac{12375}{5000} = 2.475\text{eV}$

Thus : $E = \phi + ev_0$

$\Rightarrow v_0 = \frac{E-\phi}{e}$

$= \frac{2.475-2}{1.6\times10^{-19}}$

$= 0.475\text{V}$

Q.7 In the density measurement of a cube, the mass and edge length are measured as (10.00 ± 0.10) kg and (0.10 ± 0.01)m, respectively. The error in the measurement of density is :

(1) 0.31 kg/m³ (2) 0.01 kg/m³ (3) 0.10kg/m³ (4) 0.07 kg/m³

Sol. **1**

$m = (10.00 \pm 0.10)\text{kg}$

$l = (0.10 \pm 0.01)\text{m}$

Cube $\Rightarrow v = l^3$

$\rho = \frac{m}{v}$

$\pm\frac{d\rho}{\rho} = \pm\frac{dm}{m} \pm \frac{3dl}{l}$

$\Rightarrow \frac{d\rho}{\rho} = \frac{0.10}{10.00} + \frac{3(0.01)}{(0.10)}$

$\Rightarrow \frac{d\rho}{\rho} = 0.01 + 0.3$

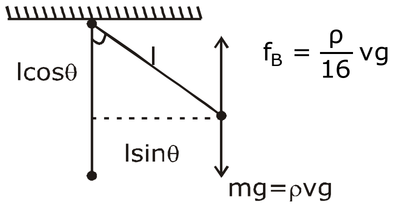
$= 0.31$

Q.8 A simple pendulum oscilliating in air has period T. The bob of the pendulum is completely immersed is a non-viscous liquid. The density of the liquid is $\frac{1}{16}$th of the meterial of the bob. If the bob is inside liquid all the time, its period of oscillation in this liquid is :

(1) $4T\sqrt{\frac{1}{15}}$ (2) $2T\sqrt{\frac{1}{10}}$ (3) $2T\sqrt{\frac{1}{14}}$ (4) $4T\sqrt{\frac{1}{14}}$

Sol. **1**

$T = 2\pi\sqrt{\frac{l}{g}}$



$\rho_l = \frac{\rho_B}{16}$

$\tau_{net} = I\alpha$

$\Rightarrow (\rho vg - \frac{\rho}{16}vg) \times l\sin\theta = (\rho v)l^2\alpha$

$\Rightarrow \frac{15}{16}\rho vgl\sin\theta = \rho vl^2\alpha$

$\Rightarrow \alpha = \frac{15g}{16l}\sin\theta$

θ is small

$\therefore \alpha = \frac{15g}{16l}\theta$

Compare ; $\alpha = -\omega^2\theta$

$\therefore \omega = \sqrt{\frac{15g}{16l}}$

Hence : $\boxed{T_{new} = 2\pi\sqrt{\frac{16l}{15g}} = 4 \times 2\pi\sqrt{\frac{l}{15g}}}$

$\therefore T_{new} = 4T\sqrt{\frac{1}{15}}$

Q.9 Taking the wavelength of first Balmer line in hydrogen spectrum (n = 3 to n = 2) as 660 nm, the wavelength of the 2nd Balmer line (n = 4 to n = 2) will be :

(1) 889.2 nm (2) 488.9 nm (3) 388.9 nm (4) 642.7 nm

Sol. **2**

By Rydberg formula :

$\frac{1}{\lambda_1} = R[\frac{1}{2^2} - \frac{1}{3^2}] = \frac{5}{36}R$

$\frac{1}{\lambda_2} = R[\frac{1}{2^2} - \frac{1}{4^2}] = \frac{3}{16}R$

$\therefore \frac{\lambda_2}{\lambda_1} = \frac{5R/36}{3R/16} = \frac{20}{27}$

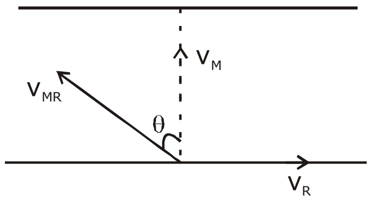
$\lambda_2 = \frac{20}{27} \times 660$

$= 488.88\text{nm}$

Q.10 The stream of a river is flowing with a speed of 2 km/h. A swimmer can swim at a speed of 4km/h What should be the direction of the swimmer with respect to the flow of the river to across the river straight ?

(1) 90° (2) 60° (3) 150° (4) 120°

Sol. 4



$v_R = 2km/hr$

$V_{MR} = 4km/hr$

$\therefore \sin\theta = \frac{v_R}{v_{MR}} = \frac{2}{4} = \frac{1}{2}$

$\theta = 30^\circ$ with vertical

$\therefore \theta$ with river flow = 30°+90°

= 120°

Q.11 A concave mirror for face viewing has focal length of 0.4 m. The distance at which you hold the mirror from your face in order to see your image upright with a magnification of 5 is :

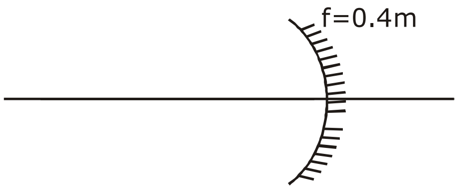
(1) 0.16 m (2) 0.32 m (3) 1.60 m (4) 0.24 m

Sol. 2

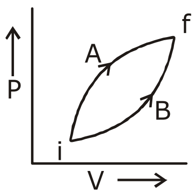
$m = 5 = \frac{f}{f-u}$

$\Rightarrow 5 = \frac{-0.4}{-0.4-u}$

$\Rightarrow u = -0.32m$



Q.12 Following figure shows two precesses A and B for a gas. If ΔQ_A and ΔQ_B are the amount of heat absorbed by the system in two cases, and ΔU_A and ΔU_B are changes in internal energies, respectively, then :



(1) $\Delta Q_A > \Delta Q_B, \Delta U_A = \Delta U_B$ (2) $\Delta Q_A < \Delta Q_B, \Delta U_A < \Delta U_B$

(3) $\Delta Q_A > \Delta Q_B, \Delta U_A > \Delta U_B$ (4) $\Delta Q_A = \Delta Q_B; \Delta U_A = \Delta U_B$

Sol. 2

By FLOT :

dQ=du+dw

$dw_A > dw_B$

$\therefore \Delta Q_A > \Delta Q_B$

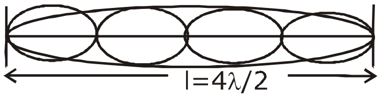
$\Delta U_A = \Delta U_B$ (Initial and final conditions are same)

Q.13 A string is clamped at both the ends and it is vibrating in its 4th harmonic. The equation of the stationary wave is Y=0.3 sin(0.157x) cos(200πt). The length of the string is : (All quantities are is SI units.)

(1) 60 m (2) 40 m (3) 20 m (4) 80m

Sol. **4**

Y=0.3 sin(0.157x) cos(200πt)



$f_1 = \frac{v}{2l}$

$f_4 = \frac{4v}{2l}$

4th Harmonic

$k = 0.157 = \frac{2\pi}{\lambda}$

$\Rightarrow \lambda = \frac{2\pi}{0.157}$

$\frac{4\lambda}{2} = l \Rightarrow 2\lambda = l$

$\Rightarrow \frac{2 \times 2\pi}{0.157} = l$

$\Rightarrow l = 80m$

14. A moving coil galvanometer has resistance 50 Ω and it indicates full diflection at 4 mA current. A voltmeter is made using this galvanometer and a 5 kΩ resistance. The maximum voltage, that can be measured using this voltmeter, will be closed to :

(1) 20 V (2) 40 V (3) 15 V (4) 10 V

Sol. **1**

$V = i_g(R + R_g)$

$= 4 \times 10^{-3}(5000 + 50)$

$\simeq 20V$

15. If 'M' is the mass of water that rises in a capillary tube of radius 'r', then mass of water which will rise in a capillary tube of radius '2r' is :

(1) 2 M (2) M (3) 4 M (4) $\frac{M}{2}$

Sol. **1**

m=ρAh

$\Rightarrow m = \rho \times \pi r^2 \times \frac{2T\cos\theta}{r\rho g}$

$\Rightarrow m = \frac{2Tr\pi\cos\theta}{g}$

$\Rightarrow m \propto r$

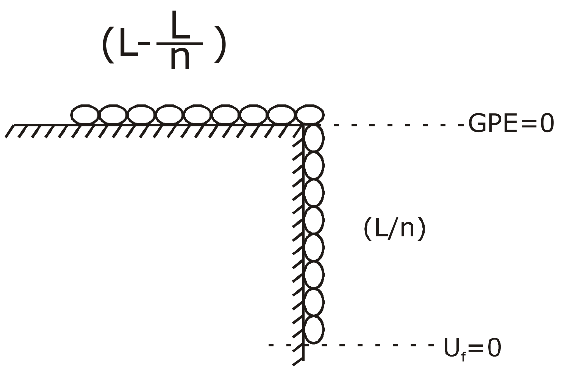
for 2r tube

mass = 2M

Q.16 A uniform cable of mass 'M' and length 'L' is placed on a horizontal surface such that its $(\frac{1}{n})^{th}$ part is hanging below the edge of the surface. To lift the hanging part of the cable upto the surface, the work done should be :

(1) $\frac{Mgl}{n^2}$ (2) $\frac{2Mgl}{n^2}$ (3) $\frac{Mgl}{2n^2}$ (4) nMgL

Sol. **3**



$$U_i = \frac{mg}{n}\frac{l/2}{n}$$

$$= -\frac{mgl}{2n^2}$$

$W_c = -\Delta U$

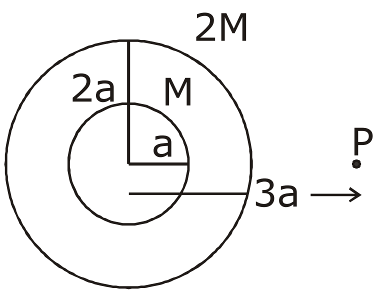
$= -(U_f - U_i)$

$\Rightarrow W_c = \frac{mgl}{2n^2}$

Q.17 A solid sphere of mass 'M' and radius 'a' is surrounded by a uniform concentric spherical shell of thickness 2a and mass 2M. The gravitational field at distance '3a' from the centre will be :

(1) $\frac{2GM}{9a^2}$ (2) $\frac{GM}{9a^2}$ (3) $\frac{GM}{3a^2}$ (4) $\frac{2GM}{3a^2}$

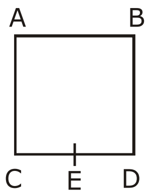
Sol. **3**



$g_p = \frac{Gm}{(3a)^2} + \frac{G2M}{(3a)^2}$

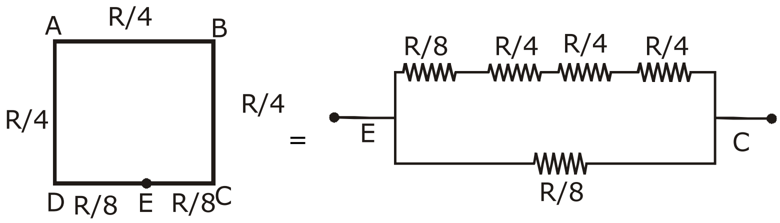
$= \frac{3GM}{9a^2} = \frac{GM}{3a^2}$

Q.18 A wire of resistance R is bent to from a square ABCD as shown in the figure. The effective resistance between E and C is :
(E is mid-point of arm CD)



(1) $\frac{3}{4}R$ (2) R (3) $\frac{1}{16}R$ (4) $\frac{7}{64}R$

Sol. **4**



$\therefore R_{eq} = \frac{7R}{64}$

Q.19 A stationary horizontal disc is free to rotate about its axis. When a torque is applied on it, its kinetic energy as a function of θ, where θ is the angle by which it has rotated, is given as $k\theta^2$. If its moment of inertia is I then the angular acceleration of the disc is :

(1) $\frac{k}{4I}\theta$ (2) $\frac{2k}{I}\theta$ (3) $\frac{k}{2I}\theta$ (4) $\frac{k}{I}\theta$

Sol. **2**

Given :

$\frac{1}{2}I\omega^2 = K\theta^2$

$\Rightarrow \omega^2 = \frac{2k\theta^2}{I}$

Diff. wrt θ :

$2\omega\frac{d\omega}{d\theta} = \frac{4k\theta}{I}$

$\Rightarrow 2\alpha = \frac{4k\theta}{I}$

$\Rightarrow \alpha = \frac{2k\theta}{I}$

Q.20 An NPN transistor is used in common emitter configuration as an amplifier with 1 kΩ load resistance. Signal voltage of 10 mV is applied across the base-emitter. This produces a 3 mA change in the collector current and 15μA change in the base current of the amplifier. The input resistance and voltage gain are :

(1) 0.33 kΩ,1.5 (2) 0.33 kΩ,300 (3) 0.67 kΩ,200 (4) 0.67 kΩ,300

Sol. **4**

$$r_i = \frac{\Delta V_{BE}}{\Delta I_B} = \frac{10 \times 10^{-3}}{15 \times 10^{-6}} = 0.67k\Omega$$

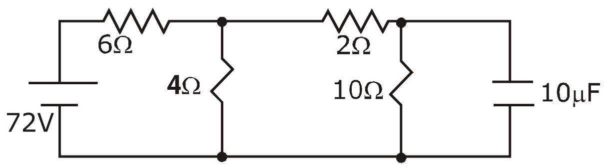
$$A_V = \beta \frac{R_L}{R_i}$$

$$\beta = \frac{I_C}{I_B}$$

$$\Rightarrow A_V = \frac{3 \times 10^{-3}}{15 \times 10^{-6}} \times \frac{1000}{0.67 \times 1000}$$

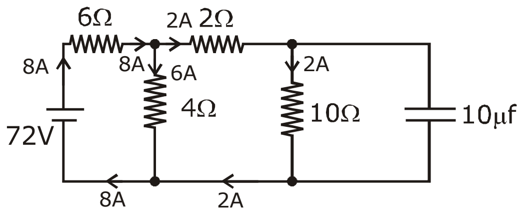
$= 300$

Q.21 Detrmine the charge on the capacitor in the following circuit :



(1) 2μC (2) 200μC (3) 10μC (4) 60μC

Sol. **2**



$$R = \frac{12 \times 4}{12 + 4} = 3$$

$R_{eq} = 9\Omega$

$V = iR_{eq}$

$$\Rightarrow i = \frac{72}{9} = 8A$$

V across C = iR

$= 2 \times 10 = 20V$

$\therefore Q = CV = 10 \times 10^{-6} \times 20 = 200\mu C$

Q.22 An HCl molecule has rotational, translational and vibrational motions. If the rms velocity of HCl molecules in its gaseous phase is $\bar{v}$, m is its mass and k_B is Boltzmann constant, then its temperature will be :

(1) $\frac{m\bar{v}^2}{7k_B}$ (2) $\frac{m\bar{v}^2}{5k_B}$ (3) $\frac{m\bar{v}^2}{3k_B}$ (4) $\frac{m\bar{v}^2}{6k_B}$

Sol. **4**

$\frac{6}{2}KT = \frac{1}{2}mv^2$

$= T = \frac{mv^2}{6k}$

Q.23 A rectangular coil (Dimension 5cm×2.5 cm) with 100 turns, carrying a current of 3 A in the clock-wise direction, is kept centered at the origin and in the X-Z plane. A magnetic field of 1 T is applied along X-axis, If the coil is tilled through 45° about Z-axis, then the torque on the coil is :

(1) 0.38 Nm (2) 0.42 Nm (3) 0.27 Nm (4) 0.55 Nm

Sol. **3**

$\tau = MB\sin 45°$

$= \frac{NiAB}{\sqrt{2}} = \frac{1000 \times 3 \times 12.5 \times 10^{-4} \times 1}{1.414}$

$= 0.27Nm$

Q.24 for a given gas at 1 atm pressure, rms speed of the molecules is 200 m/s at 127°C. At 2 atm pressure and at 227°C, the rms speed of the molecules will be :

(1) $100\sqrt{5}$ m/s (2) 80 m/s (3) $80\sqrt{5}$ m/s (4) 100 m/s

Sol. **1**

$V_{rms} = \sqrt{\frac{3RT}{M}}$

T_1=127°C = 400K
T_2=227°C =500K

$\therefore \frac{V_{rms1}}{V_{rms2}} = \sqrt{\frac{T_1}{T_2}}$

$\Rightarrow \frac{200}{V_2} = \sqrt{\frac{400}{500}}$

$V_2 = 100\sqrt{5}m/s$

Q.25 The pressure wave, $P = 0.01\sin[1000t - 3x]Nm^{-2}$,corresponds to the sound produced by a vibarating blade on a day when atmsopheric temperature is 0°C. On some other day when temperature is T, the speed of sound produced by the same blade and at the same frequency is found to be 336 ms^{-1}. Approximate value of T is :

(1) 4°C (2) 15°C (3) 11°C (4) 12°C

Sol. **1**

$P = 0.01\sin[1000t - 3x]Nm^{-2}$

$\omega = 1000 \Rightarrow V_1 = \frac{\omega}{k}$

$k = 3$

$V_1 = \frac{1000}{3} m/s$

At Temprature T :

$V_2 = 336 m/s$

$(v = \sqrt{\frac{\gamma RT}{M}})$

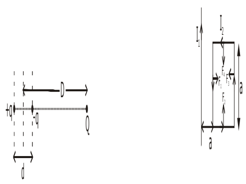
$\frac{V_1}{V_2} = \sqrt{\frac{T_1}{T_2}}$

$\frac{1000/3}{336} = \sqrt{\frac{273}{T_2}}$

$T = 277.4K$

$\simeq 4.4°C$

Q.26 A rigid square loop of side 'a' and carrying current I_2 is lying on a horizontal surface near a long current I_1 carrying wire in the same plane as shown in figure. The net force on the loop due to the wire will be :



(1) Zero

(2) Repulsive and equal to $\frac{\mu_0 I_1 I_2}{4\pi}$

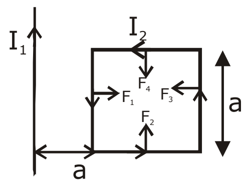
(3) Attractive and equal to $\frac{\mu_0 I_1 I_2}{3\pi}$

(4) Repulsive and equal to $\frac{\mu_0 I_1 I_2}{2\pi}$

Sol. **2**

Here F_2 and F_4 cancels.

F_1 and F_3 are added



$\therefore F_1 = \frac{\mu_0 i_1}{2\pi a} \times i_2 \times a$

$F_2 = \frac{\mu_0 i_1}{2\pi 2a} \times i_2 \times a$

$(F_1 > F_2)$

$\therefore F_{net} = F_1 - F_2 = \frac{\mu_0 i_1 i_2}{4\pi a}$ (Repulsive)

Q.27 The magnetic field of a plane electromagnetic wave is given by :

$\vec{B} = B_0\hat{i}[\cos(kz-\omega t)] + B_1\hat{j}\cos(kz+\omega t)$ Where $B_0 = 3\times10^{-5}$T and $B_1 = 2\times10^{-6}$T. The rms value of the force experienced by a stationary charge Q=10^{-4}C at z=0 is closest to :

(1) 3×10^{-2} N (2) 0.6 N (3) 0.9 N (4) 0.1 N

Sol. **2**

$\vec{B} = B_0\hat{i}[\cos(kz-\omega t)] + B_1\hat{j}\cos(kz+\omega t)$

$\therefore \vec{E} = -CB_0\cos(kz-\omega t)\hat{j} - CB_1\cos(kz+\omega t)\hat{i}$

Thus rms value of force

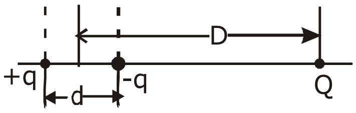
F_{rms}=qE

$= 10^{-4}[(\frac{CB_0}{\sqrt{2}})^2 + (\frac{CB_1}{\sqrt{2}})^2]^{\frac{1}{2}}$

$= \frac{10^{-4}\times3\times10^8}{\sqrt{2}}[(3\times10^{-5})^2 + (2\times10^{-6})^2]^{\frac{1}{2}}$

$\simeq 0.63$N

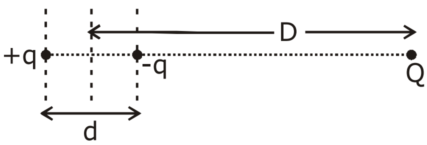
Q.28 A system of three charges are placed as shown in the figure :



If D>>d, the potential energy of the system is best given by :

(1) $\frac{1}{4\pi\varepsilon_0}[+\frac{q^2}{d}+\frac{qQd}{D^2}]$ (2) $\frac{1}{4\pi\varepsilon_0}[-\frac{q^2}{d}-\frac{qQd}{2D^2}]$ (3) $\frac{1}{4\pi\varepsilon_0}[-\frac{q^2}{d}+\frac{2qQd}{D^2}]$ (4) $\frac{1}{4\pi\varepsilon_0}[-\frac{q^2}{d}-\frac{qQd}{D^2}]$

Sol. **4**



If D>>d

$U = \frac{-kq^2}{d} + \frac{kqQ}{D+\frac{d}{2}} - \frac{kqQ}{D-\frac{d}{2}}$

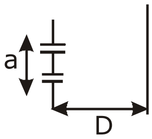
$U = \frac{-kq^2}{d} - \frac{kqQd}{(D^2-\frac{d^2}{4})}$

Now

D >>> d

$\therefore U = \frac{-kq^2}{d} - \frac{kqQd}{D^2}$

Q.29 The figure shown a Young's double slit experimental setup. It is observed that when a thin transparent sheet of thickness t and refractive index μ is put in front of one of the slits, the central maximum gets shifted by a distance equal to n frings widths. If the wavelength of light used is λ,t will be :



(1) $\frac{nD\lambda}{a(\mu-1)}$ (2) $\frac{2nD\lambda}{a(\mu-1)}$ (3) $\frac{D\lambda}{a(\mu-1)}$ (4) $\frac{2D\lambda}{a(\mu-1)}$

Sol. **1**

We know that :

$$\Delta x = \frac{dy}{D}$$

$$\Delta x = n\beta$$

$$(\mu-1)t = \frac{nD\lambda}{a}$$

$$\Rightarrow t = \frac{nD\lambda}{a(\mu-1)}$$

Q.30 A capacitor with capacitance 5 μF is charged to 5 μC. If the plates are pulled apart to reduce the capacitance to 2 μF, how much work is done ?

(1) 2.55×10^{-6}J (2) 6.25×10^{-6}J (3) 2.16×10^{-6}J (4) 3.75×10^{-6}J

Sol. **4**

$C_i=5\mu F; Q=5\mu C$

$C_f=2\mu F$

$$W = \frac{Q^2}{2C_f} - \frac{Q^2}{2C_i}$$

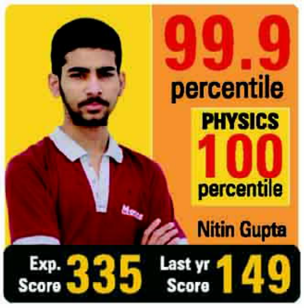
Put the values :

W= 3.75×10^{-6}J

मोशन ने बनाया साधारण को असाधारण

JEE Main Result Jan'19

4 RESIDENTIAL COACHING PROGRAM (DRONA) STUDENTS ABOVE 99.9 PERCENTILE



Total Students Above 99.9 percentile - **17**

Total Students Above 99 percentile - **282**

Total Students Above 95 percentile - **983**

% of Students Above 95 percentile $\frac{983}{3538}$ = **27.78%**

Scholarship on the Basis of 12th Class Result

Marks PCM or PCB	Hindi State Board	State Eng OR CBSE
70%-74%	30%	20%
75%-79%	35%	25%
80%-84%	40%	35%
85%-87%	50%	40%
88%-90%	60%	55%
91%-92%	70%	65%
93%-94%	80%	75%
95% & Above	90%	85%

New Batches for Class 11th to 12th pass
17 April 2019 & 01 May 2019

हिन्दी माध्यम के लिए पृथक बैच

Scholarship on the Basis of JEE Main Percentile

Score	JEE Mains Percentile	English Medium Scholarship	Hindi Medium Scholarship
225 Above	Above 99	Drona Free (Limited Seats)	
190 to 224	Above 97.5 To 99	100%	100%
180 to 190	Aboev 97 To 97.5	90%	90%
170 to 179	Above 96.5 To 97	80%	80%
160 to 169	Above 96 To 96.5	60%	60%
140 to 159	Above 95.5 To 96	55%	55%
74 to 139	Above 95 To 95.5	50%	50%
66 to 73	Above 93 To 95	40%	40%
50 to 65	Above 90 To 93	30%	35%
35 to 49	Above 85 To 90	25%	30%
20 to 34	Above 80 To 85	20%	25%
15 to 19	75 To 80	10%	15%

सैन्य कर्मियों के बच्चो के लिए 50% छात्रवृत्ति | **प्री-मेडिकल में छात्राओं को 50% छात्रवृत्ति**