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JEE (MAIN) 2026

MEMORY BASED QUESTIONS & TEXT SOLUTION

SHIFT-1

DATE & DAY: 23rd January 2026 & Friday

PAPER-1

Duration: 3 Hrs.
Time: 09:00 – 12:00 IST

SUBJECT: PHYSICS

Selections in JEE (Advanced)/ IIT-JEE Since 2002	Selections in JEE (Main)/ AIEEE Since 2009	Selections in NEET (UG)/ AIPMT/AIIMS Since 2012
52979	262693	22733
Classroom: 35901 | Distance: 17078	Classroom: 194471 | Distance: 68222	Classroom: 15409 | Distance: 7324

Admission Open for 2026-27

Target: JEE (Advanced) | JEE (Main) | NEET (UG) | PCCP (Class V to X)

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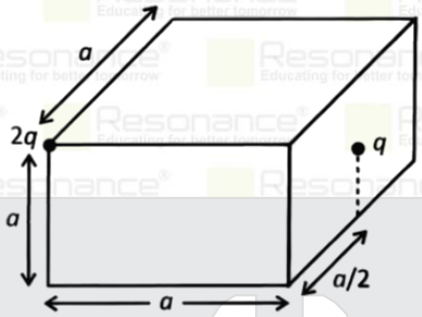
PART : PHYSICS

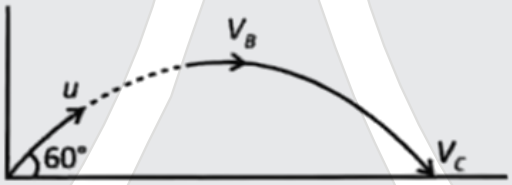
1. There are two point charges, one at vertex and other at face as shown the cube. Find electric flux through the cube.



(1) $3q/\varepsilon_0$ (2) q/ε_0 (3) $3q/4\varepsilon_0$ (4) $5q/\varepsilon_0$

Ans. (3)

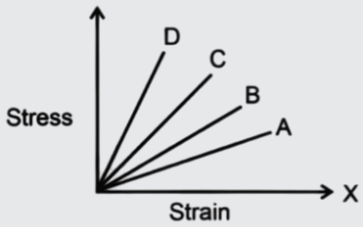
2. If a projectile is being projected with speed v at angle 60° with horizontal. Find the ratio of speed at highest point (v_B) to the speed at final point (v_C).



(1) 3:4 (2) 1:3 (3) 1: 2 (4) 1: 12

Ans. (3)

3. Which one has more young's modulus



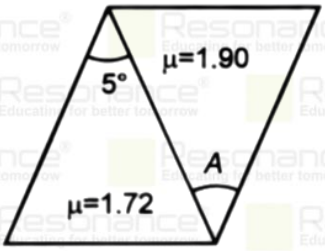
Ans. (4)

4. Find out the correct energy for the grand state or energy transition. (symbols have usual meaning & $n \to m$ gives the transition)

(1) $\mathrm{H}(-6.8\mathrm{eV})$ (2) $\mathrm{Li}^{2+}(-13.6\mathrm{eV})$ (3) $\mathrm{He}^{+}_{2\to1}(40.8\mathrm{eV})$ (4) $\mathrm{Be}^{3+}_{2\to1}(+13.6\mathrm{eV})$

Ans. (3)

5. Find A for dispersion without deviation.



(1) 3 (2) 4 (3) 4.5 (4) 5

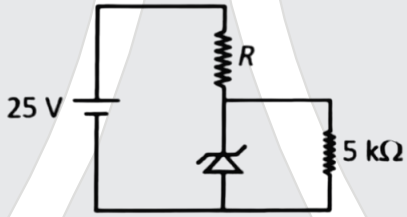
Ans. (2)

6. For the given set of measurement find relative error.
20.00,19.75,18.25,17.01

(1) 0.09 (2) 0.17 (3) 0.12 (4) 0.06

Ans. (4)

7. For the given circuit the breakdown voltage of Zener diode is $V_z = 5$ volts. And the maximum current $I_Z = 5$ mA. Find the value of R.



(1) 5 kΩ (2) $\frac{10}{3}$ kΩ (3) 15/4 kΩ (4) 8 kΩ

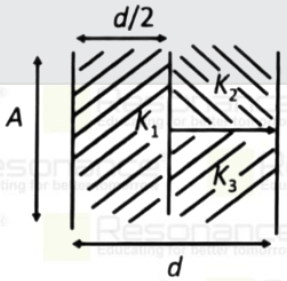
Ans. (2)

8. A simple pendulum of length 30 cm complete 40 revolutions in 10 sec then how much length of this pendulum should be increased so that it complete 20 revolutions in 10sec.

(1)30 cm (2)60cm (3)90cm (4)120cm

Ans. (3)

9. Find capacitance of capacitor given below if each plate has area A and separation is d between them. $K_1 = 3\ K_2 = 5\ K_3 = 2$



(1) $\frac{128\varepsilon_0 A}{4d}$ (2) $\frac{140\varepsilon_0 A}{6d}$ (3) $\frac{120\varepsilon_0 A}{30d}$ (4) $\frac{123\varepsilon_0 A}{40d}$

Ans. (4)

10. In two different YDSE setup for two different monochromatic wave are used but fringe width on the screen is same. If $\frac{\lambda_1}{\lambda_2}=\frac{1}{2}$ and $\frac{d_1}{d_2}=\frac{2}{1}$, then find the ratio of $\frac{D_1}{D_2}$ (All symbols are standard).

(1)3 (2) 4 (3) 2 (4) 6

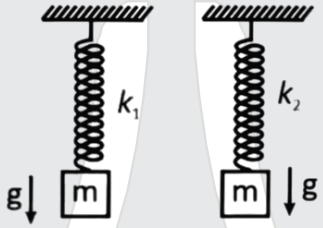
Ans. **(2)**

11. A 25 kg mass moving with $30\ \text{m/s}$ and another mass 15 kg of same material moving with $10\ \text{m/s}$ in opposite direction, collides perfectly inelastically. Find the rise in temperature of the system. (Given $C=5\ \frac{\text{cal}}{\text{g°C}}$ & $1\ \text{cal}=4.2\ \text{J}$)

(1) $1/112\ ^\circ\text{C}$ (2) $1/50\ ^\circ\text{C}$ (3) $1/150°\text{C}$ (4)$1/125°\text{C}$

Ans. **(1)**

12. Find ratio of energy stared in the two springs as shown in figure below ($2\ \text{K1}=\text{K2}, 4\text{M1}=\text{M2}$)



(1)1/4 (2)1/2 (3) 1/8 (4)1

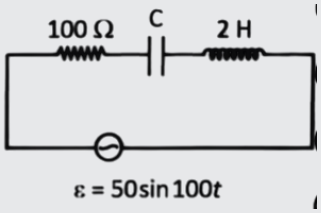
Ans. **(3)**

13. Two point particles of masses 2 m and m are attached to ends of a massless rod of length l . Find Angular momentum of this system about an axis passing through their center of mass and perpendicular to the rod if the system is rotating with angular velocity ω about the axis.

(1) $\frac{2}{3}m\omega l^2$ (2) $\frac{1}{3}m\omega l^2$ (3) $\frac{m\omega l^2}{9}$ (4)$m\omega l^2$

Ans. **(1)**

14. The peak current in given LCR series Ac circuit shown is 5 mA , then capacitance in μF is nearly.



(1)1 (2)3 (3)4 (4)5

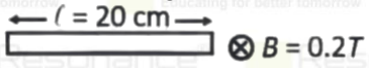
Ans. **(1)**

15. Two median of refractive indices $n_1 \& n_2$ have plane interface. Speed of light in 1^{st} is $2.4\times10^8\ \text{m/s}$ & in 2^{nd} is $2.8\times10^8\ \text{m/s}$. Find critical angle of incidence when light travels from 1^{st} to 2^{nd} .

(1)$\sin^{-1}\left(\frac{6}{7}\right)$ (2)$\sin^{-1}\left(\frac{7}{8}\right)$ (3)$\sin^{-1}\left(\frac{8}{9}\right)$ (4)$\tan^{-1}\left(\frac{9}{8}\right)$

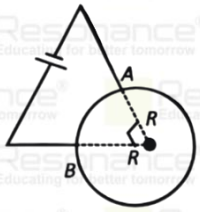
Ans. **(1)**

16. Find emf induced in rod after it has fallen through 2000 m under gravity in volt.



Ans. **(2 Volt)**

17. A uniform wire is beat into the shape of a circle of radius R has resistance per unit length $= \lambda$. A battery is connected across point A and B which subtends an angle of $90°$ at its centre as shown. Find the equivalent resistance of this circuit.



(1) $\frac{3\pi}{4}\lambda R$ (2) $\frac{\pi}{2}\lambda R$ (3) $\frac{3\pi}{8}\lambda R$ (4) $\frac{\pi}{4}\lambda R$

Ans. **(3)**