

class2016					
R	Exam1	Exam2	Exam3	Exam4	Exam5
R00801609	68	68	100	68	84
R01026470	84	68	100	84	84
R01077393	84	84	84	84	84
R01078460	100	68	84	68	100
R01083245	100	84	100	84	84
R01096647	84	52	100	84	84
R01124126	84	52	92	52	100
R01124355	84	68	100	84	100
R01173254	100	52	100	68	100
R01177331	100	36	100	68	100
R01305105	100	36	100	84	68
R01316004	100	68	100	68	100
R01316415	68	54	84	84	100
R01320803	84	52	100	52	100
R01323060	100	52	100	68	100
R01324215	100	52	100	68	100
R01327763	84	68	100	68	100
R01328521	84	52	100	52	100
R01329410	52	52	68	68	84
R01329827	100	20	100	68	100
R01331415	100	36	100	68	100
R01331479	84	36	92	84	100
R01335317	100	20	100	84	100
R01336246	100	52	100	84	100
R01336332	100	52	100	84	84
R01337940	68	52	92	68	100
R01338810	68	52	84	84	34
R01342892	100	68	84	68	100
R01344623	84	52	92	84	84
R01347660	100	68	100	84	84
R01347712	100	68	100	84	100
R01351700	100	84	100	68	100
R01368974	68	84	100	34	100
R01369514	100	68	100	52	100
R01371352	84	68	84	84	84
R01393833	100	52	100	68	100
R01394566	100	68	100	68	100

Summer 2016. Exam 5. QQ 1-3

<p>#1. A $1\mu\text{F}$ circular plate capacitor in an RC circuit with resistance $1\ \Omega$ is discharging from the initial voltage $1\ \text{V}$. The plate radius is $1\ \text{cm}$. What is the magnetic field between the plates $0.5\ \text{cm}$ away from the capacitor axis at the beginning of discharge?</p> <p>A. 0 B. $1\ \text{T}$ C. $20\ \mu\text{T}$ D. $5\ \mu\text{T}$ E. None of the above</p>	<p>#2. A cylinder solenoid of radius $1\ \text{cm}$ having 1000 turns carries electric current $1\ \text{A}$. It is placed in the external magnetic field of strength $1\ \text{T}$ parallel to its axis. Torque required to change the solenoid orientation to the opposite, equals</p> <p>1. $3.8\ \mu\text{J}$ 2. $100\ \text{J}$ 3. $0.65\ \text{N}$ 4. $13\ \text{eV}$ 5. None of the above</p>	<p>#3. If the amplitude of the magnetic field in a plane electromagnetic wave of angular frequency ω is B, and c is the speed of light, then the amplitude of the displacement current density (A/m^2) is</p> <p>A. Zero, because current does not flow in vacuum B. $\mu_0 B \omega c$ C. $(\epsilon_0 \mu_0)^{1/2} B \omega$ D. $\epsilon_0 B \omega c$ E. Above of the none</p>
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Summer 2016. Exam 5. QQ 4-6

<p>#4. Light is emitted by a bulb of power with intensity of $100\ \text{W}$. It falls normally on a fully absorbing concentric sphere of radius $1\ \text{m}$. The pressure of the radiation on the sphere is:</p> <p>1. $2.8\ \text{nPa}$ 2. $3.3 \times 10^{-7}\ \text{Pa}$ 3. $6.6 \times 10^{-7}\ \text{N}$ 4. None of the above 5. Cannot be calculated</p>	<p>#5. The index of refraction of a material is 1.41. The critical angle for total internal reflection, at germanium air interface is about:</p> <p>A. 45° B. 34° C. 60° D. 12° E. None of the above</p>	<p>#6. An object is $30\ \text{cm}$ in front of a diverging lens of focal length $10\ \text{cm}$. The image is :</p> <p>A. Real and larger than the object B. Real and the same size as the object C. Real and smaller than the object D. Virtual and the same size as the object E. Virtual and smaller than the object.</p>
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