UTKARSH PANWAR
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K-1

ASS-3 (Physics)

Q1)	Emf (E)	Voltage (V)
1)	The amount of energy supply by the source to each coulomb of charge.	Energy used by unit charge to move from one point to another.
2)	$E = I(R+r)$	$V = IR$
3)	Measured between the end point of the source when no current flows through it	Measured between any two points in a closed circuit
4)	Source: Dynamo, electrochemical cell, transformer etc.	Source: Electric and magnetic field.

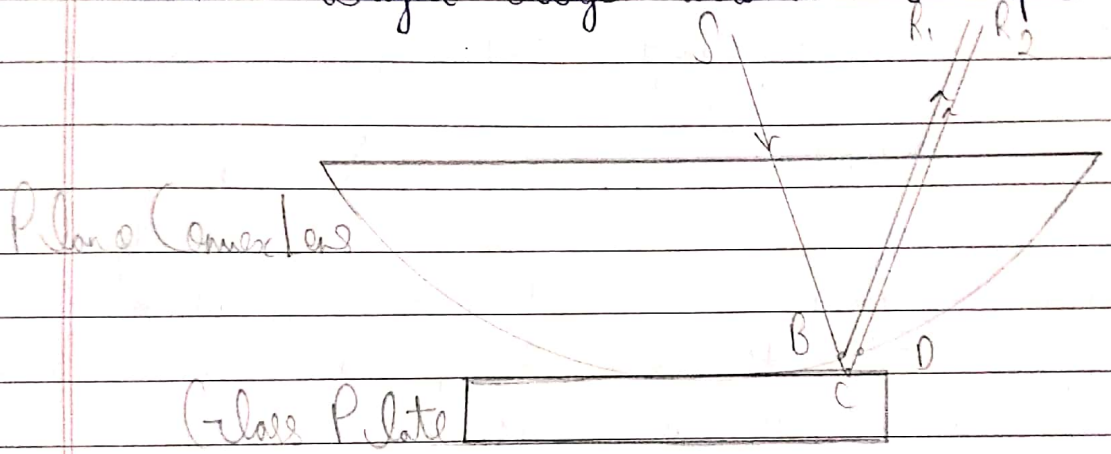
Q2) 1) Variable tuned circuits of analogue radios.
2) Voltage multiplier circuits

Q3) 25 kHz : Magnetostrictive method
2 MHz : Piezoelectric method

Q4) When a plano convex lens with large radius of curvature is placed on a plane glass plate such that its curved surface faces the glass plate, a wedge air film of gradually increasing thickness is formed between the lens and the glass plate.

If monochromatic light is allowed to fall normally on the lens from a source 'S' then two reflected rays R_1 and R_2

from the two surface of the film interfere to produce circular interference pattern. This interference pattern has concentric alternate dark and bright rings around the point of contact.



Q6) 1) Sky
2) Ocean

Q7) $\theta = \frac{\lambda}{w}$ → Wavelength
↑ (w) → Radius

Divergence

$\theta \propto \lambda$

$\theta \propto \frac{1}{w}$