माध्यमिक शिक्षा मण्डल, मध्यप्रदेश, भोपाल

24 पृष्ठीय

परीक्षार्थी द्वारा भरा जावे ↓

परीक्षा का विषय	विषय कोड	परीक्षा का माध्यम
Physics	210	English

स्टीकर तीर के निशान [illegible] में

3736426

A -

परीक्षार्थी का रोल नम्बर

अंकों में

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शब्दों में

	TWO	EIGHT	SEVEN	EIGHT	FOUR	TWO	FOUR	THREE	TWO

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परीक्षार्थी द्वारा भरा जावे →

क :– पूरक उत्तर पुस्तिकाओं की संख्या अंकों में 03 शब्दों में Three.

ख :– परीक्षार्थी का कक्ष क्रमांक 154

ग :– परीक्षा का दिनांक 14 | 03 | 2018

परीक्षा का नाम एवं परीक्षा केन्द्र क्रमांक की मुद्रा

हायर सेकण्डरी सर्टिफिकेट परीक्षा 2018

केन्द्र क्रमांक-782167

केन्द्राध्यक्ष/सहायक केन्द्राध्यक्ष एवं पर्यवेक्षक द्वारा भरा जावे →

पर्यवेक्षक का नाम एवं हस्ताक्षर	केन्द्राध्यक्ष/सहायक केन्द्राध्यक्ष के हस्ताक्षर
सुधा जोशी 14/03/2018	केन्द्राध्यक्ष विवेक ज्योति हायर सेकेण्डरी स्कूल लालबर्रा

परीक्षक एवं उपमुख्य परीक्षक द्वारा भरा जावे ↓

प्रमाणित किया जाता है कि मूल्यांकन के समय पूरक उत्तर पुस्तिकाओं की संख्या उपरोक्तानुसार सही पाई होलो क्राफ्ट स्टीकर क्षतिग्रस्त नहीं पाया गया तथा अन्दर के पृष्ठों के अनुरूप मुख्य पृष्ठ पर अंकों की प्रविष्टी एवं अकों का योग सही है।

निर्धारित मुद्रा : नाम, पदनाम, मोबाईल नम्बर, परीक्षक क्रमांक एवं पदांकित संस्था के नाम की मुद्रा लगाएं।

उप मुख्य परीक्षक के हस्ताक्षर एवं निर्धारित मुद्रा	परीक्षक के हस्ताक्षर एवं निर्धारित मुद्रा
	Chandra [illegible] V.N[illegible]

परीक्षक एवं उपमुख्य परीक्षक द्वारा भरा जावे →

केवल परीक्षक द्वारा भरा जावे।

प्रश्न क्रमांक के सम्मुख प्राप्तांकों की [illegible] करें।

प्रश्न क्रमांक	पृष्ठ क्रमांक	प्राप्तांक में)
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प्रश्न क्र.

Answer of Ques no- 01

(a) (iii) $E \propto \frac{1}{r^2}$

(b) (iii) Zero.

(c) (ii) Micro waves and visible light.

(d) (i) Positively charged.

(e) (ii) Only analog.

Answer of Ques no- 02

(a) "Ideal."

(b) "less"

(c) "Concave"

(d) "Plank"

(e) "-1.602×10^{-19} C"

योग

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Answer of Ques no - 03

(a) Lorentz force - $qVB\sin\theta$

(b) Parallel Plate Capacitor - $\frac{\varepsilon_0 A}{d}$

(c) Internal Resistance - $r = R\left[\frac{E}{V} - 1\right]$

(d) The resonant frequency of an LC circuit - $\omega = \frac{1}{\sqrt{LC}}$

(e) De - Broglie wavelength - $\lambda = \frac{h}{\sqrt{2mK}}$

B

S

F

Answer of Ques no - 04

(a) Direction of flow of electron is from "Low Potential to high Potential."

(b) One can notice the phenomenon of diffraction which the Obstable in path of light is in the order of its (wave). wavelength.

(c) For the .

प्रश्न क्र.

(c) For the Possibility of total internal Reflection following two conditions are necessary -
(i) light should travel from denser to Rarer medium.
(ii) Incident angle should be more than critical angle.

B (d) Conductivity of Pure semiconductor increases with increase in temperature.

S

F - Television was invented by "J. L. Bayerd

Answer of Ques no- 05

Two uses of Gamma rays. -

(1) It is used in cure of Cancer & tumour disease.

(2) It is used in preservation of food for long time.

(3) It is used in detection of Nuclear Reactions.

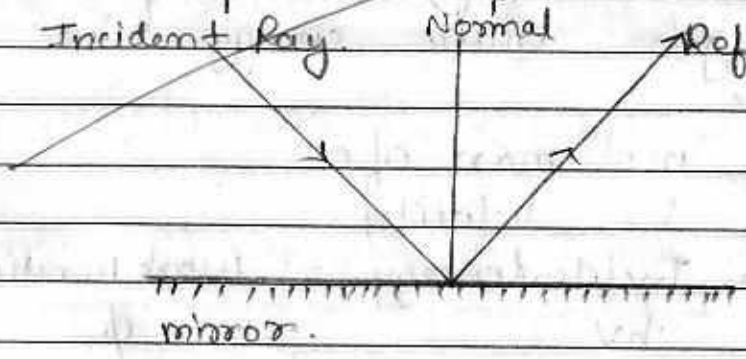
Answer of Ques no - 06.

Reflection :- The phenomenon of bouncing (returning) back of light rays after striking in smooth, shiny and Non-transparent medium into called its previous medium is called Reflection.

Laws of Reflection.

(1) Angle of incident is equal to the angle of Reflection.

(2) Incident Ray, Reflected Ray and Normal all lie in a same plane.



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Ans of Ques no - 07.

Work function :-
The minimum amound of energy Required to eject electrons from its surface is called. Work function

When the light is incident on any met-al surface, which have Photons of energy $h\nu$ then it is consumed in two ways.- (i) It Provide the energy equal to the work function.
(ii) Remaining energy is used to increase the kinetic energy of electron.

Suppose, energy of incident Photon is $h\nu$
Work function of metal is $\phi = h\nu_0$
gain kinetic energy is $\frac{1}{2}mv^2$

where

m = mass of e⁻
v = Velocity

then, Incident energy = Work function + K.E.

$h\nu = \phi + \frac{1}{2}mv^2$

$h\nu = h\nu_0 + \frac{1}{2}mv^2$

$h\nu - h\nu_0 = \frac{1}{2}mv^2$

Einstein Relation

$$\frac{1}{2}mv^2 = h\nu - h\nu_0$$

This is requried Relation.

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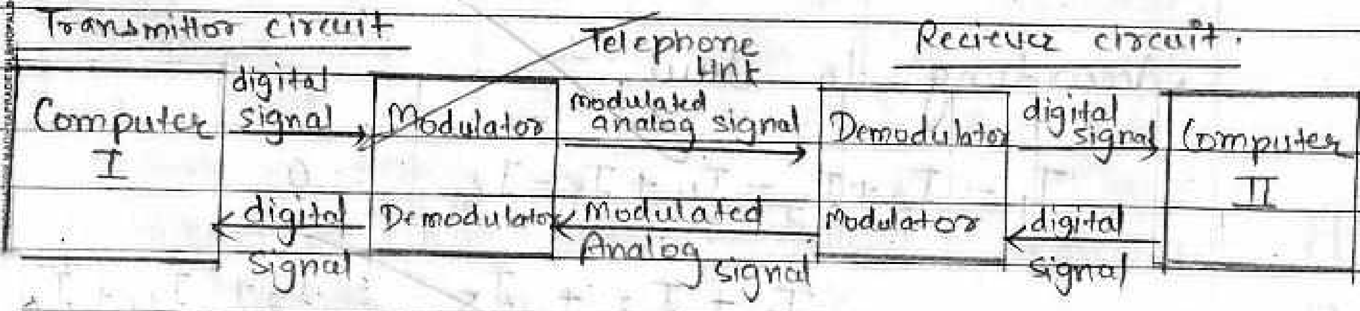
Answer of Ques - 08

MODEM.

It connects two computers through telephone link. & act as both Modulator & De modulator.

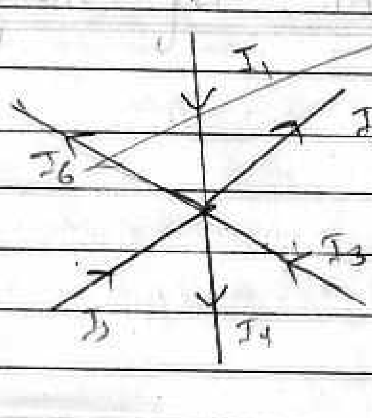


Answer of Ques - 09.

According to Kirchoff's law of distribution of Current :-

"At any junction in electric circuit, Algebric sum of total current is always zero"

$$\Sigma I = 0$$



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Incoming current are taken positive
So I_1 & I_3 & I_5 are (+ve)

Outgoing current from junction are taken negative
I_2 & I_4 & I_6 are (-ve).

According to law.

$$I_1 - I_2 + I_3 - I_4 + I_5 - I_6 = 0$$

$$I_1 + I_3 + I_5 = I_2 + I_4 + I_6$$

Incoming current = Outgoing current.

Hence it is clear that at any junction, total incoming current is always equal to total outgoing curre
So, there is no storage of charge at any junction.
Thus it follows the law of Conservation of charge.

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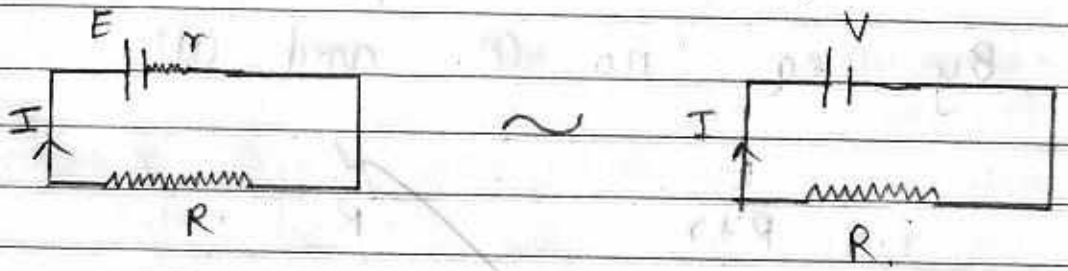
Answer of Ques no - 10.

Relation between e.m.f., terminal Voltage & Internal Resistance of cell.



Suppose in an electric circuit, consists of External Resistance R, and Cell of E.m.f E and which have internal Resistance r,

Current following through aricuit is I.

Then, total Resistance will be R+r.

and,

according to ohm's law.

$$\text{current} = \frac{\text{E.M.F of cell}}{\text{total Resistance.}}$$

$$I = \frac{E}{R+r} \quad \text{— (1)}$$

again,

when the current flows.

Potential difrance is V.

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then

Current = Potential difference / Resistance

$$I = \frac{V}{R} \quad \text{— (II)}$$

By eq no (I) and (II)

$$\frac{E}{R+r} = \frac{V}{R}$$

$$\frac{E}{V}\cdot\frac{R}{R} = \frac{R+r}{R}$$

$$\frac{E}{V} = \frac{R}{R} + \frac{r}{R}$$

$$\frac{E}{V} = 1 + \frac{r}{R}$$

$$\frac{E}{V} - 1 = \frac{r}{R}$$

$$\frac{E-V}{V} = \frac{r}{R}$$

$$\frac{r}{R} = \frac{E-V}{V}$$

$$\boxed{r = R\left[\frac{E-V}{V}\right]}$$

This is Required Relation between internal Resistance, E.M.F & terminal Voltage.

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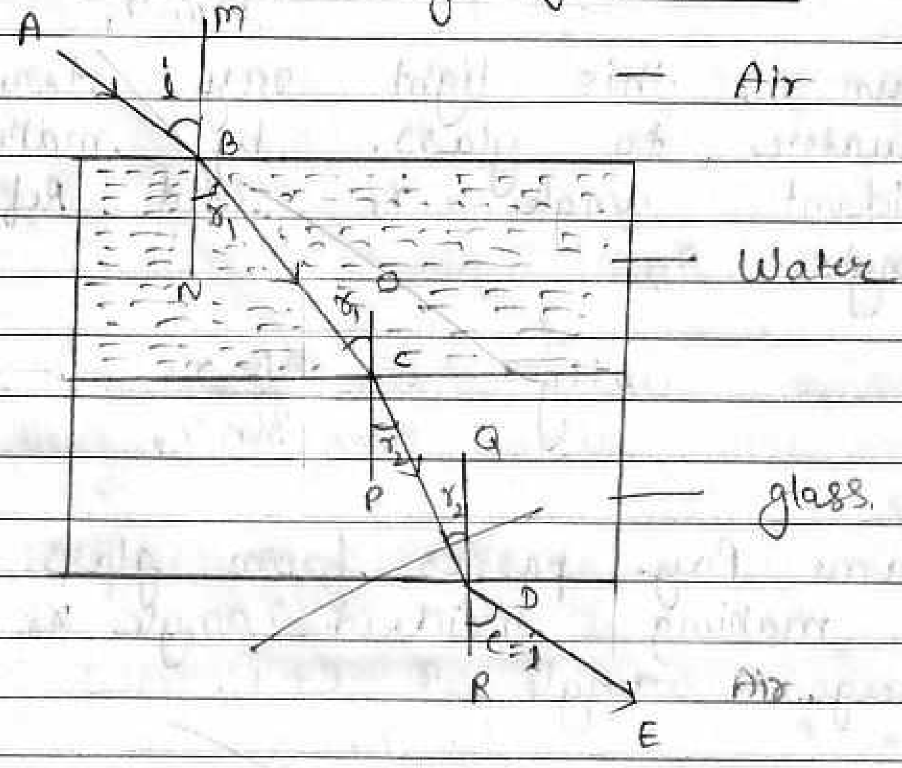
Answer of Ques no- 11

To Prove :-

$a\mu_w \times w\mu_g \times g\mu_a = 1$



"When a light ray passes through the several parallel medium and if the first medium and last medium are same then incident ray and emergent ray are parallel".

Suppose a light Ray AB incident on water surface from air and its angle of incident is $\angle i$ and refraction angle is $\angle r$ as the light Ray Bend toward normal.

प्रश्न क्र.

then

Refractive index

$$a_{11}w = \frac{\sin i}{\sin r_1} \quad \text{—(i)}$$

again, this light ray travel from water to glass. by making incident angle r_1 and Refracted angle r_2

$$w_{11}g = \frac{\sin r_1}{\sin r_2} \quad \text{—(ii)}$$

Same Ray passes from glass to air. by making incident angle r_2 and emergent angle e. $e = i$.

$$g_{11}a = \frac{\sin r_2}{\sin e} \quad \text{—(iii)}$$

By Multiplying eq (i) & (ii) & (iii)

$$a_{11}w \times w_{11}g \times g_{11}a = \frac{\sin i}{\sin r_1} \times \frac{\sin r_1}{\sin r_2} \times \frac{\sin r_2}{\sin e}$$

(Since $e = i$)

$$\boxed{a_{11}w \times w_{11}g \times g_{11}a = 1.}$$

Hence proved.

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Answer of Ques no - 12.

Essential Conditions for obtaining Pure Spectrum are :-

(1) The Number of incident rays must be minimum, so that they will less mix. for that narrow slit is used. chances of obtaining pure spectrum increases.

(2) All the incident rays must be Parallel to each other. So that, after dispersion, Rays of same colour will be Parallel. for that convex lens is used.

(3) All the Rays of Same colour must be focused at a single point on the screen thus every colour have its single point.

(4) Prism should be kept is condition of minimum deviation. So, Obtained spectrum is bright and sharp.

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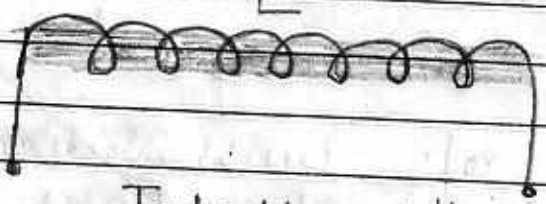
Answer of Ques no - 43.

Differences among Diamagnetic, Paramagnetic, Ferromagnetic Substance.

	Diamagnetic Substance	Paramagnetic Substance	Ferromagnetic Substance
(1)	These substances experience weak Repulsion in strong magnetic field. (external)	These substance experience weak attraction force in strong magnetic field.	These substance acquire the strong attraction force even in weak external magnetic field.
(2)	These are attracted toward the weak magnetic field when placed in non-uniform magnetic field.	These are attracted toward the strong magnetic field when placed in non uniform magnetic field.	These are attracted toward the strong magnetic field when placed in non uniform magnetic field.
(3)	These are not used to make permanent magnets.	These cannot used to make permanent magnet.	These are used to make permanent magnet.

प्रश्न क्र.			
(4)	They balance perpendicular to the direction of external magnetic field	They balance along the direction of external magnetic field.	They balance along the direction of external magnetic field.
(5)	Example - Water, gold, diamond, Copper.	Example - Oxygen, Copper chloride (CuCl)	Example - Soft iron, Steel, Nickel, Cobalt.

Answer of Ques no - 14.



Induction coil.
(Solenoid.

Suppose a solenoid of length l. number of turns in unit length is n. and it have radius r. Total number of turns is N then,

$$n = \frac{N}{l}$$

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Current I is flowing through the Solenoid, and its Self inductia coefficient is L.

Intensity of magnetic field at a point on the axis of solenoi is

$$B = 4\pi n I \text{ gauss.}$$

$$B = \frac{\mu_0 4\pi n I}{4\pi} \text{ tesla.}$$

$$B = \mu_0 n I \text{ tesla.}$$

$$\left(\because n = \frac{N}{l}\right)$$

$$B = \frac{\mu_0 N I}{l} \text{ tesla.}$$

Area of cross section is A
Number of turns is N
then,

Effective area = NA

If the flux associated is ϕ
then,

ϕ = Intensity × Effective are

$\phi = B \times NA$ weber.

$$\phi = \frac{\mu_0 N I}{l} \times NA \text{ Weber}$$

Since, $\phi \propto I$

$\phi = -LI$

(∵ L is scaler Quantity so -ve sign negligible).

$$\phi = LI$$

$$L = \frac{\phi}{I}$$

$$L = \frac{\phi}{I} = \frac{\mu_0 N^2 I A}{l I} \text{ Henry}$$

$$\boxed{L = \frac{\mu_0 N^2 A}{l} \text{ Henry}}$$

Since its Radius is r. So,

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

This is the Required Expression for the intensity of magnetic field at point on the axis of Solenoid.

प्रश्न क्र.

Factors affecting:

(1) Number of Turns => Self induction coefficient is directly proportional to the number of turns, thus to increase it, number of turns should be more.

(2) Area of Solenoid => Area of Solenoid should be more for the high self induction coefficient.

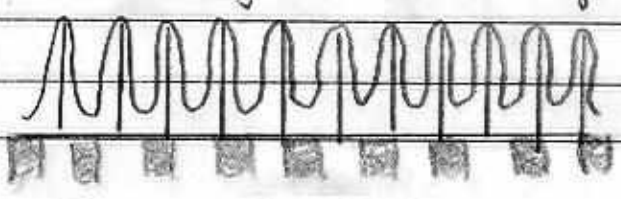
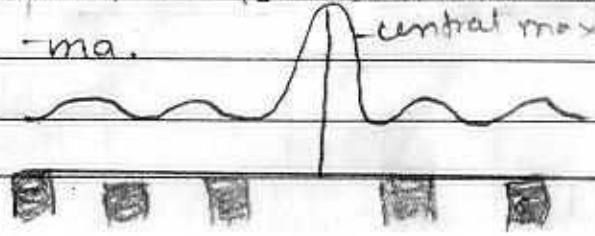
B S E

(3) length of Solenoid => length of Solenoid is inversely proportional to the self induction coefficient.

(4) Permeability of Medium => Permeability of medium should be more for high self induction coefficient.

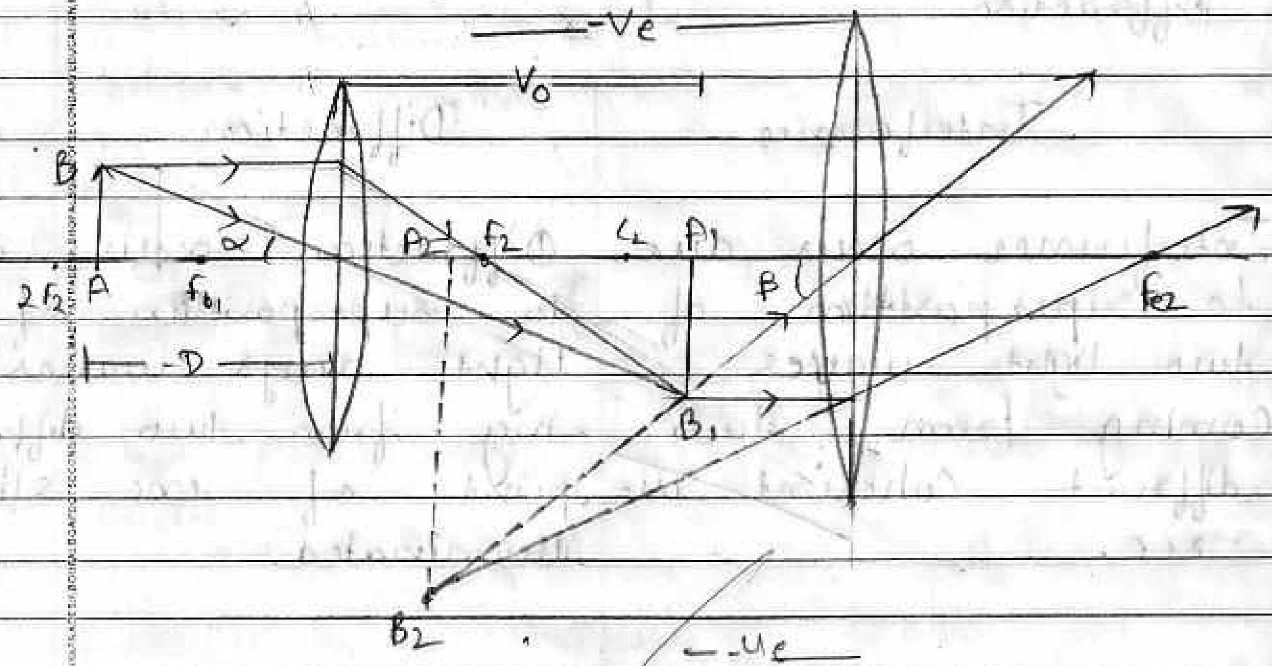
Answer of Ques no - 15

Diffrence between Interference & Diffraction.

Interference	Diffraction.
1. Interference occur due to superposition of two light waves coming from two different coherent source.	Diffraction occur due to superposition of two light ways waves coming from two different point of one slit. illuminated.
2. Width of all bright fringes is same.	2. Width of central maxima is more than Succesive maxima.
3. Width of all dark fringes is same.	3 Minima does not have width it is just point like.
4. Intensity of all bright fringes is same.	4. Intensity of bright fringes decreases with successive maxima.
5. bright & dark fringe 	central maxima 

प्रश्न क्र.

Answer of Ques - 16
Compound Microscope.



Compound microscope.
It is used to see the nearby small objects in magnified form.

Construction.
It consists of cylindrical tube in which one side objective lens is fitted and another side another tube is attached and at its end eye piece lense is attached. It is provided with rack and pinion arrangment.

क्र.

Working :- Incident light fall on objective lens coming from small objects AB and form an image A_1B_1, which is inverted magnified. and eye lens from its highly magnified image. where A_1B_1 act as object. for objective lens. 8

distance of object $= u_0 = -D$, distance of image $= V_0$

for objective lens focal length $= f_0$

Magnifying power = Angle subtended by image / Angle subtended by object present at least distance.

$$m = \frac{\beta}{\alpha} \quad \text{(For small angle)}$$

$$m = \frac{\tan\beta}{\tan\alpha}$$

then, $\tan\beta = \frac{-A_2B_2}{A_2E}$ — ①

for eye lens.

distance of object $= -u_e$

distance of image $= -V_e$

focal length $= f_e$.

in eq①. $\angle A_2EB_2 = \angle A_1EB_1$

then

$$\tan\beta = \frac{-A_1B_1}{A_1E}$$

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$$\tan \alpha = \frac{AB}{AO}$$

then

$$m = \frac{-A_1B_1}{A_1E} \Big/ \frac{AB}{AO}$$

$$m = \frac{-A_1B_1}{AB} \times \frac{AO}{A_1E}$$

$$m = \frac{-A_1B_1}{AB} \times \frac{-u_0 - D}{-u_e}$$

Since

$$\frac{\text{distance of image}}{\text{distance of object}} = \frac{\text{length of Dimage}}{\text{length of Obj.}}$$

$$\frac{-V_0}{u_0} = \frac{-A_1B_1}{AB.}$$

then

$$m = \frac{-V_0}{u_0} \times \frac{-D}{-u_e}$$

$$m = \frac{-V_0}{u_0} \times \frac{D}{u_e}.$$

Length of tube = $\boxed{V_o + u_e}$

when image formed at least distance then $V_e = D$.

$$\frac{1}{f_e} = \frac{1}{-V_e} - \frac{1}{-u_e}$$

$$\frac{1}{f_e} = \frac{1}{-D} + \frac{1}{u_e}$$

$$\frac{1}{f_e} + \frac{1}{D} = \frac{1}{u_e}$$

$$\frac{D}{f_e} + \frac{D}{D} = \frac{D}{u_e}$$

$$\frac{D}{f_e} + 1 = \frac{D}{u_e}$$

So $$m = \frac{-V_o}{u_e}\left(\frac{D}{f_e} + 1\right).$$

क्र.

Answer of Ques no. 17

"Carrier waves are the electromagnetic waves having high frequency in which modulating wave is superposed."

Need of Carrier wave :-

(1) Since the Modulating wave have very low energy which is in the order of 10^{-12} eV. So when it travel for long distance then its energy is dissipated and amplitude of signal is reduced.

(2) The wave length of a modulating signal is very large so it required a hight of antenna used for transimission is very high about 1.5 km.

But the carrier wave have energy about 10^{-8} eV and its wavelength is also small about 10^2 m.

Thus carrier waves are required,

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4 पृष्ठीय

परीक्षार्थी द्वारा भरा जावे ↓

परीक्षा का विषय	विषय कोड	परीक्षा का माध्यम	परीक्षा का दिनांक
Physics	2 1 0	English	16 03 2018

स्टीकर तीर के निशान ↓ से मिलाकर लगायें

परीक्षा का नाम एवं परीक्षा केन्द्र क्रमांक की मुद्रा

हायर सेकेण्डरी सर्टिफिकेट परीक्षा 2018

केन्द्र क्रमांक-782167

पर्यवेक्षक का नाम एवं हस्ताक्षर

सुदामा केवट

14/03/2018

केन्द्राध्यक्ष / सहायक केन्द्राध्यक्ष के हस्ताक्षर

केन्द्राध्यक्ष
विवेक ज्योति हाईस्कूल

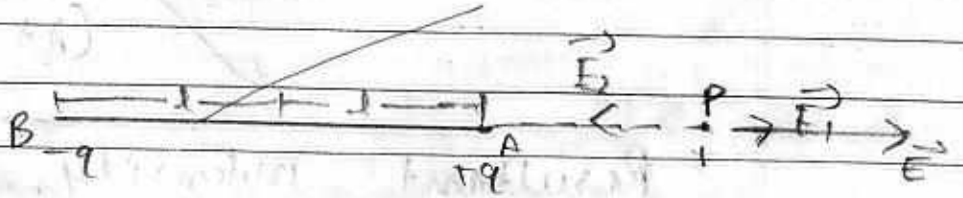
मुख्य उत्तर पुस्तिका के अंतिम पृष्ठ क्रमांक ..... तक कुल प्राप्तांक [ ] + [ ] = [ ]

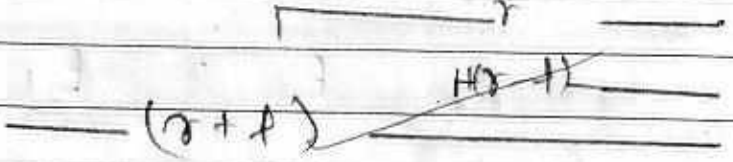
परीक्षार्थी द्वारा भरा जावे →

अंकों का योग

Ques - 18.

Electric dipole :- It is a system of two equal & unlike charge placed at close distance is called electric dipole.





Suppose a electric dipole of length 2l and charge +q and -q and a point P is present at r distance from center where we have to find out Intensity of electric dipole. Since, its Intensity due to +q charge is E_1 & due to -q is E_2 then resultant intensity will be along E_1 which is $\vec{E}$.

Intensity due to +q charge.

$$E_1 = \frac{q}{(r-l)^2}$$

Intensity due to -q charge. is

$$E_2 = \frac{q}{(r+l)^2}$$

Resultant Intensity.

$$E = E_1 - E_2$$

$$E = \frac{q}{(r-l)^2} - \frac{q}{(r+l)^2}$$

$$E = q\left[\frac{(r+l)^2 - (r-l)^2}{(r-l)^2(r+l)^2}\right]$$

$$E = q\left[\frac{(r+l+r-l)(r+l-r+l)}{(r^2-l^2)^2}\right]$$

$$E = \frac{q \cdot 2r \cdot 2l}{(r^2-l^2)^2}$$

$$E = \frac{2Pr}{(r^2-l^2)^2} \quad \text{oersted.}$$

$$E = \frac{1}{4\pi\varepsilon_0} \frac{2Pr}{(r^2-l^2)^2} \quad \text{tesla.}$$

$r >> l.$

if l is neg.

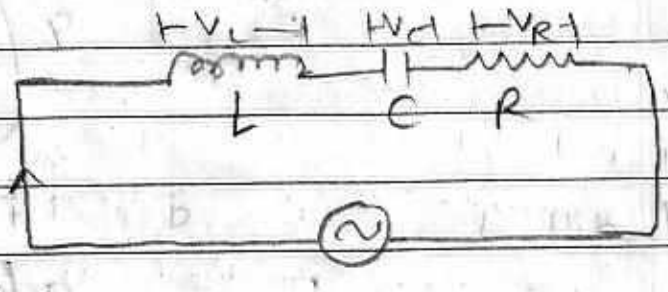
$$E = \frac{1}{4\pi\varepsilon_0} \frac{2Pr}{r^4} \quad \text{tesla.}$$

B.

$$E = \frac{1}{4\pi\varepsilon_0} \frac{2P}{r^3} \quad \text{tesla.}$$

Ques - 19.

L-C-R circuit.

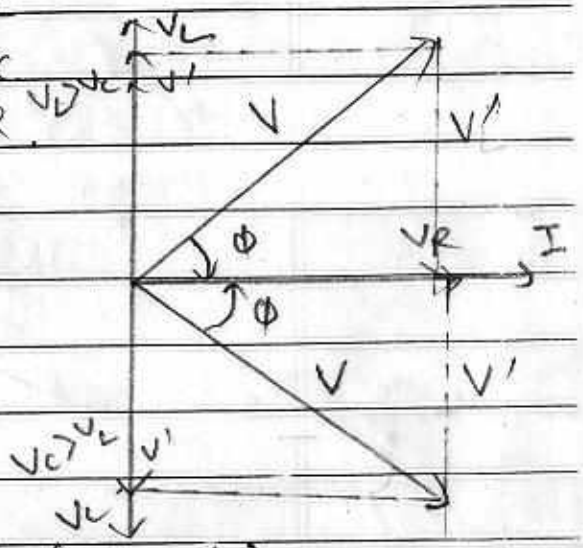


Suppose in electric circuit induction coil, capacitor and Resistance are connected with AC source. applied Voltage V at instant

$$V = V_0 \sin \omega t.$$

Potential difference across L, C, and R are V_L, V_C, V_R

$$V_L = I X_L$$
$$V_C = I X_C$$
$$V_R = I R.$$



$$I = I_0 \sin(\omega t \pm \phi)$$

माध्यमिक शिक्षा मण्डल, मध्यप्रदेश, भोपाल

4 पृष्ठीय

परीक्षा का विषय: Physics | परीक्षार्थी द्वारा भरा जावे ↓ विषय कोड: 2 1 0 | परीक्षा का माध्यम: English | परीक्षा का दिनांक: 15 | 03 | 2018

स्टीकर तीर के निशान ↓ से मिलाकर लगायें

परीक्षार्थी द्वारा भरा जावे →

परीक्षा का नाम एवं परीक्षा केन्द्र क्रमांक की मुद्रा
बोर्ड सेकेण्डरी सर्टिफिकेट परीक्षा 2018
केन्द्र क्रमांक-782167

परवेक्षक का नाम एवं हस्ताक्षर
सुधाम कोहरा
15/03/2018

केन्द्राध्यक्ष / सहायक केन्द्राध्यक्ष के हस्ताक्षर
केन्द्राधीक्षा
विवेक ज्योति हाईस्कूल
लालकुआँ

मुख्य उत्तर पुस्तिका के अंतिम पृष्ठ क्रमांक.....तक कुल प्राप्तांक ☐ + ☐ = ☐

B S E

then

Phase difference,

$$\tan\phi = \frac{V'}{V_R}$$

$$\tan\phi = \frac{V_L \sim V_C}{V_R}$$

$$\tan\phi = \frac{IX_L \sim IX_C}{IR}$$

$$\tan\phi = \frac{I(X_L \sim X_C)}{IR}$$

$$\tan\phi = \frac{\omega L \sim 1/\omega C}{R}$$

B.

अंकों का क्षेत्र

Phase difference, $\phi = \tan^{-1} \frac{\omega L - 1/\omega C}{R}$

Resultant Voltage.

$$V^2 = V'^2 + V_R^2$$

$$V^2 = (V_L - V_C)^2 + V_R^2$$

$$V^2 = (IX_L - IX_C)^2 + V_R^2$$

$$V^2 = I^2 (X_L - X_C)^2 + I^2 R^2$$

$$V^2 = I^2 [(X_L - X_C)^2 + R^2]$$

Resultant Impedence

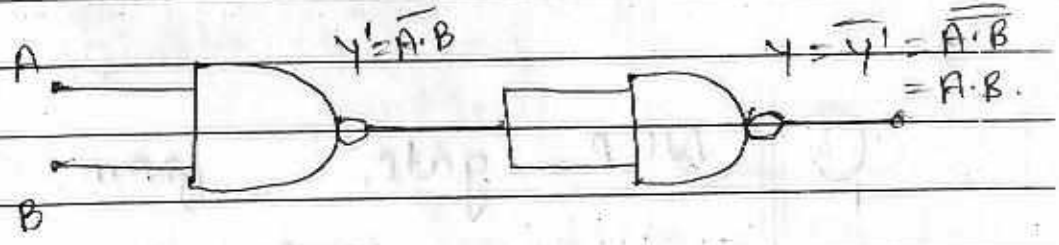
$$\frac{V^2}{I^2} = \left(\omega L - \frac{1}{\omega C}\right)^2 + R^2$$

$$Z_{LCR} = \sqrt{R^2 + \left(\omega L - \frac{1}{\omega C}\right)^2}$$

Ques - 20

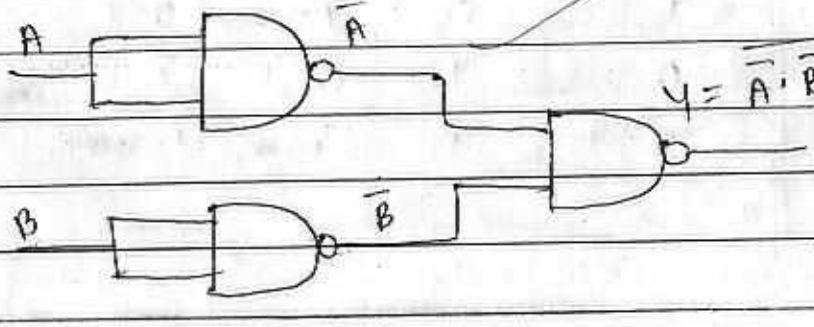
(i) From NAND gate.

AND gate from NAND gate.



A	B	$Y' = \overline{A \cdot B}$	$Y = \overline{Y'} = \overline{\overline{A \cdot B}} = A \cdot B$
0	0	$\overline{0 \cdot 0} = \overline{0} = 1$	$\overline{1} = 0$
1	0	$\overline{1 \cdot 0} = \overline{0} = 1$	$\overline{1} = 0$
0	1	$\overline{0 \cdot 1} = \overline{0} = 1$	$\overline{1} = 0$
1	1	$\overline{1 \cdot 1} = \overline{1} = 0$	$\overline{0} = 1$

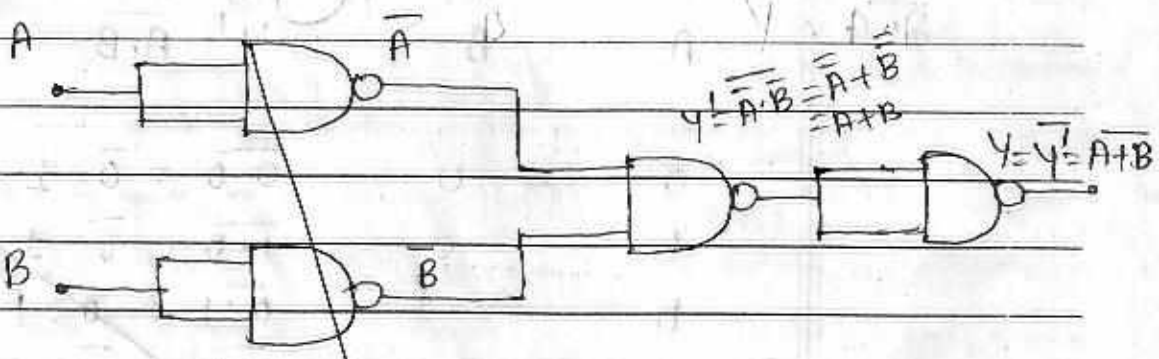
(ii) OR gate from NAND gate.



Truth table.

A	B	$\bar{A}$	$\bar{B}$	$Y = \overline{\bar{A}.\bar{B}} = \bar{\bar{A}} + \bar{\bar{B}} = A+B$.
0	0	$\bar{0}=1$	$\bar{0}=1$	$\overline{1.1} = \bar{1} = 0$
0	1	$\bar{0}=1$	$\bar{1}=0$	$\overline{1.0} = \bar{0} = 1$
1	0	$\bar{1}=0$	$\bar{0}=1$	$\overline{0.1} = \bar{0} = 1$
1	1	$\bar{1}=0$	$\bar{1}=0$	$\overline{0.0} = \bar{0} = 1$

(3) NOR gate from NAND gate.



A	B	$\bar{A}$	$\bar{B}$	$Y' = \overline{\bar{A}.\bar{B}} = \bar{\bar{A}} + \bar{\bar{B}} = A+B$	$Y = \bar{Y'} = \overline{A+B}$
0	0	$\bar{0}=1$	$\bar{0}=1$	$\overline{1+1} = \bar{1} = 0$	$\bar{0} = 1$
1	0	$\bar{1}=0$	$\bar{0}=1$	$\overline{0+1} = \bar{1} = 0$	$\bar{0} = 1$
0	1	$\bar{0}=1$	$\bar{1}=0$	$\overline{1+0} = \bar{1} = 0$	$\bar{0} = 1$
1	1	$\bar{1}=0$	$\bar{1}=0$	$\overline{0+0} = \bar{0} = 1$	$\bar{1} = 0$.

(3)

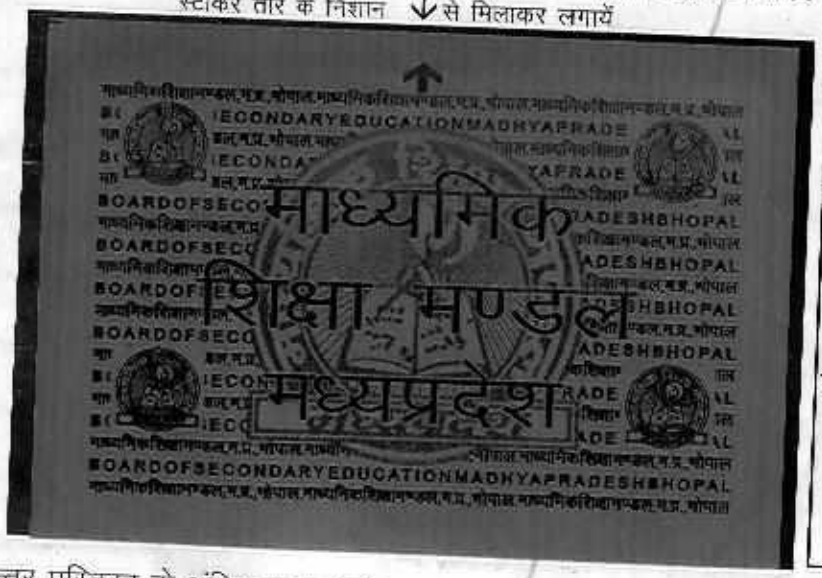
माध्यमिक शिक्षा मण्डल, मध्यप्रदेश, भोपाल

4 पृष्ठीय

परीक्षार्थी द्वारा भरा जावे ↓

परीक्षा का विषय	विषय कोड	परीक्षा का माध्यम	परीक्षा का दिनांक
Physics	2 1 0	English	14 03 2012

स्टीकर तीर के निशान ↓ से मिलाकर लगायें



परीक्षा का नाम एवं परीक्षा केन्द्र क्रमांक की मुद्रा

हायर सेकेण्डरी सर्टिफिकेट परीक्षा 2018

केन्द्र क्रमांक-782167

परवेक्षक का नाम एवं हस्ताक्षर

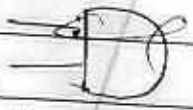
14/03/2018

केन्द्राध्यक्ष/सहायक केन्द्राध्यक्ष के हस्ताक्षर

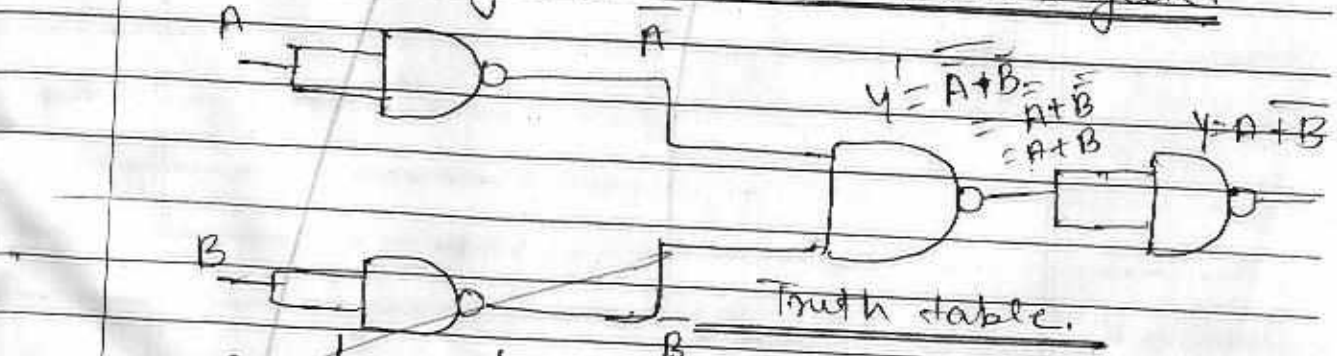
केन्द्राध्यक्ष
विवेक ज्योति हाईस्कूल
लालघाटी

परीक्षार्थी द्वारा भरा जावे →

प्रश्न उत्तर पुस्तिका के अंतिम पृष्ठ क्रमांक.....तक कुल प्राप्तांक ☐ + ☐ = ☐



(3) NOR gate from NAND gate.



Truth table.

A	B	$\bar{A}$	$\bar{B}$	$Y = \bar{A}\cdot\bar{B} = \bar{A}+\bar{B}$	$Y = \overline{A+B}$
0	0	$\bar{0}=1$	$\bar{0}=1$	$= A+B$	
				$1+1 = 0$	$= \bar{0} = 1$
1	0	$\bar{1}=0$	$\bar{0}=1$	$0+1 = 1$	$= \bar{1} = 0$
0	1	$\bar{0}=1$	$\bar{1}=0$	$1+0 = 1$	$= \bar{1} = 0$
1	1	$\bar{1}=0$	$\bar{1}=0$	$0+0 = 0$	$= \bar{0} = 1$