

Name: _____					1 <sup>st</sup> YEAR Test Session 2021-22					Physics					Time Allowed: 45 M					
Roll# _____			Section: _____			Syllabus: Ch#09					Total Marks: 30					Obt Marks:				
Think Positive , Live Happy										Change Thoughts , Change Society										

Q#	A	B	C	D	Q#	A	B	C	D	Q#	A	B	C	D	Q#	A	B	C	D	Q#	A	B	C	D
01.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	02.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	03.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	04.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	05.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
06.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	07.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	08.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	09.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	10.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q. No. 1** You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, Fill bubble sheet that option. Cutting, Over-writing, using lead pencil and filling more than one circle will result in zero marks in that question. (10x1=10)

Sr.#	Questions	A	B	C	D
1	Polarization of light proves that light is	Particle	E.M wave	Both	Matter
2	Bending of light around obstacles is called	Interference	Diffraction	Reflection	Refraction
3	Rainbow on sky is the result of	Interference	Diffraction	Reflection	Refraction
4	If $\lambda=589\text{nm}$ , $d=1\text{mm}$ & $L=2.25\text{m}$ then $\Delta y=?$	1.33m	1.33nm	1.33km	1.33mm
5	The center spot of Newton dark spot is due to ----- interference	Constructive	Destructive	Both	None
6	The Bragg equation is $2d \sin\theta = n\lambda$	$n\lambda$	$m\lambda$	1	0
7	Double slit experiment is basically a study of	Interference	Diffraction	refraction	reflection
8	Young's Experiment was performed in	1805	1801	1901	1905
9	The light energy from luminous source travels in space as wave was proposed by	Huygen's	Young's	Einstein	Plank's
10	A common method to produce two coherent light beam is to use..... Source	monochromatic	White	red	Non chromatic

**Q#:2 Answer the Following short Questions (6x2=12)**

<p><b>i.</b> How would you distinguish between unpolarized and plane polarized lights?</p>	<p><b>ii.</b> What do you know about optical rotation?</p>
<p><b>iii.</b> Why the Polaroid sunglasses are better than ordinary sunglasses?</p>	<p><b>iv.</b> How the crystals produce diffraction by x-ray?</p>
<p><b>v.</b> An oil film spreading over a wet footpath shows colors. Explain how does it happen?</p>	<p><b>vi.</b> What is the function of Michelson's interferometer?</p>

**Q#:3 Answer the Following short Questions (5+3=8)**

- (a)** Explain the young's double slit experiment?
- (b)** Sodium light having wavelength 589 nm is incident normally on a grating having 3000 lines per centimeter. What is the highest order of the spectrum obtained?