Name:_____	1st YEAR Test Session 2021-22	Physics	Time Allowed: 45 M
Roll#_____ Section:_____	Syllabus: Ch#10	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.	○	○	○	○	02.	○	○	○	○	03.	○	○	○	○	04.	○	○	○	○	05.	○	○	○	○
06.	○	○	○	○	07.	○	○	○	○	08.	○	○	○	○	09.	○	○	○	○	10.	○	○	○	○

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	The power of lens is measured in:	watt	meter	Diopter	joule
2	In compound microscope the focal length of objective is --------- then eye-piece.	Greater	Shorter	Equal	None
3	In astronomical telescope the focal length of objective is --------- then eye-piece.	Greater	Shorter	Equal	None
4	In collimator the lens is present	Convex	Concave	Double convex	Double concave
5	The refractive index of glass is	1.1	1.5	1.9	2.6
6	In astronomical microscope which lense posses small focal length	Eye piece	Object lense	both	none
7	If critical angle is large than number of reflection will be	large	small	Light travel straight	all
8	Condition for total internal reflection	I=c	i>c	I<c	i=90
9	Angle of incident have……relation with angle of reflection	direct	inverse	No relation	all
10	Refractive index is given by	$\frac{c}{v}$	$\frac{v}{c}$	Both	cv

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

i.	Draw sketches showing the different light paths through a single-mode and multi mode fiber?	**ii.**	Draw a diagram of telescope and write the formula of its magnification?
iii.	A telescope having magnifying power of 5 consist of two thin lens 24cm apart. Find the focal length of lenses	**iv.**	Define the magnifying and resolving power of optical instruments?
v.	Define critical angle and total internal reflection?	**vi.**	How the light signal is transmitted through the optical fiber?

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

(a) How the power is lost in optical fiber through dispersion? Explain.

(b) A converging lens of focal length 5.0cm is used as a magnifying glass. If the near point of the observe is 25cm and the lens is held close to the eye, calculate the distance of object from the lens.