

TEST NO-3**CH - 12****PHYSICS****019 (10TH CLASS)****Paper: (Objective Type)****Time Allowed: 15 Minutes****Maximum Marks : 12**

Note : You have four choices for each objective type question as A,B,C and D. The choice which you think is correct fill that circle in front of that question number. Use marker or pen in fills this circle. Cutting or filling two or more circles will result in zero mark in that question.

Q. 1	QUESTIONS	(A)	(B)	(C)	(D)
1.	The Spherical mirrors are used in	Medical	Search light	Microscope	All these
2.	If the image is real, then distance from lens is taken.	Positive	Negative	Double	Half
3.	Concave mirror formula is given by.	$R=2f$	$1/f=1/p+1/q$	$1/f=1/p-1/q$	$\sin i/\sin r$
4.	The critical angle for water.	49°	48°	62°	50°
5.	Focal length of concave mirror is	Greater	Smaller	Positive	Negative
6.	The converging mirror with a radius of 20 cm creates a real image 30 cm from the mirror. What the object distance?	5.0 cm	7.5 cm	15 cm	20 cm
7.	Doctor use for examination of ear, nose and throat.	Concave lens	Convex lens	Concave mirror	Convex mirror
8.	Unit of power of lens is.	Hertz	Newton	Meter	Diopter
9.	Magnification of mirror is given by	$m= p/q$	$m= q/p$	$m=pxq$	$m=1/p+q$
10.	Angle opposite to the base of triangle of prism is called.	Angle of incidence	Angle of refraction	Angle of prism	Emerging angle
11.	Speed of light in air in ms-1	3×10^8	340	3×10^5	3×10^{11}
12.	Snell's Law is written as.	$\frac{\sin i}{\sin r} = n$	$\frac{\sin r}{\sin i} = n$	$\frac{c}{v} = n$	$\frac{v}{c} = n$

A B C D**A B C D****A B C D****A B C D****A B C D**

1	A B C D	4	A B C D	7	A B C D	10	A B C D	13	A B C D
2	A B C D	5	A B C D	8	A B C D	11	A B C D	14	A B C D
3	A B C D	6	A B C D	9	A B C D	12	A B C D	15	A B C D

نوٹ: معروضی سوال نامے کو توجہ سے پڑھیں اور ہر MCQ کی درست آپشن A,B,C,D کو پین کی سیاہی یا مارکر اس طرح پُر کریں کہ سیاہی دائرے سے باہر نہ نکلے۔ ایک سے زیادہ دائروں کو پُر کرنے یا کاٹ کر پُر کرنے کی صورت میں مذکورہ جواب غلط تصور ہوگا۔

(PART – I)

2. Write short answers to any Five (5) questions:

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- (i) What is uses of endoscope? Write its types
- (ii) Define concave mirror.
- (iii) What is radius of curvature?
- (iv) Distinguish between real and virtual image.
- (v) Define focal length.
- (vi) What do you mean by near point or far point?
- (vii) Define Power of lens.
- (viii) Write two uses of spherical mirror.

3. Write short answers to any Five (5) questions:

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- (i) What is the relation between focal length and radius of curvature of spherical mirror?
- (ii) How you use a printed page of book and why you “see” some printed words as black areas?
- (iii) Define optics. Also explain the geometrical optics.
- (iv) What is compound microscope? What should be distance between objective and eye piece of Compound microscope?
- (v) What is center of curvature and radius of curvature?
- (vi) What should be angle of incidence for total internal reflection?
- (vii) Define Snell law and write is formula.
- (viii) What is difference between regular and irregular reflection.

4. Write short answers to any Five (5) questions:

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- (i) Define principal focus.
- (ii) Write any two uses of lens.
- (iii) Define power of lens. Give its mathematical form and SI unit.
- (iv) What is meant by critical angle?
- (v) Illustrate the image formation in a convex lens with the help of a ray diagram when the object is placed Beyond 2F.
- (vi) Why an optician’s testing room is small, he uses a mirror to help him test the eye sight or his patients. Explain why?
- (vii) State law of refraction.
- (viii) Write down total internal reflection

(PART – II)

Note: Attempt any TWO questions.

5. (a) Define simple microscope and also derive the formula of magnifying power. 4
- (b) A ray of light from air is incident on a liquid surface at an angle of incidence 35° calculate the angle of refraction if the refractive index of the liquid is 1.25 also calculate the critical angle between the liquid air inter-face. 5
6. (a) Draw ray diagram the show the formation of image in the normal human eye.. 4
- (b) A convex lens of a focal length 6 cm is the be used to form a virtual image three times the Size of the object where must lens be placed.? 5
7. (a) What is meant by total internal reflection?. 4
- (b) An object and its image in concave mirror an of the same height yet inverted, when in object is 20 cm from the mirror. What is the focal length of the mirror? 5