

Divisional Public School & College Sahiwal (Sub Campus Chichawatni)

Time: 10 min 6Th Revision Test -2020-21 X- Physics- III Objective. Marks:10

Name: _____ Section: _____ Roll No: _____

Note: Cutting, Overwriting, use of ink remover & lead pencil is not allowed.

Q.1: Choose the correct option.

**10
Answer**

- (i) The snell law is
(A) $n = \sin i / \sin r$ (B) $n = \sin r / \sin i$ (C) $n = \sin r$ (D) $n = \sin i$ (A) (B) (C) (D)
- (ii) The critical angle of glass is
(A) 42° (B) 45° (C) 90° (D) 0° (A) (B) (C) (D)
- (iii) The index of ethyl alcohol is
(A) 2.42 (B) 2.21 (C) 1.31 (D) 1.36 (A) (B) (C) (D)
- (iv) In convex mirror focus is
(A) On the mirror (B) Behind the mirror (C) In front of mirror (D) Under the mirror (A) (B) (C) (D)
- (v) If $p=30$, $q=-10$ cm, then magnification will be
(A) $1/3$ (B) $3/1$ (C) 20 (D) 40 (A) (B) (C) (D)
- (vi) The principal focus of concave mirror is
(A) Real (B) Virtual (C) Both A and B (D) None of these (A) (B) (C) (D)
- (vii) Which of the following quantities is not changed during refraction
(A) Direction (B) Speed (C) Frequency (D) Wavelength (A) (B) (C) (D)
- (viii) Image formed by a convex lens on a screen
(A) Real, inverted, and diminished (B) Virtual, upright, and diminished (C) Virtual, upright and magnified (D) Real, inverted and magnified (A) (B) (C) (D)
- (ix) The focus of concave lens is?
(A) Virtual (B) Real (C) Both A and B (D) None of these (A) (B) (C) (D)
- (x) Dispersion of light is due to
(A) Reflection (B) Diffraction (C) Refractive index (D) Refraction (A) (B) (C) (D)

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Time: 70 min 6Th Revision Test -2020-21 X- Physics-III Subjective.

Marks:40

Q.2. Write down short answers

(15×2=30)

- (i). Explain concave mirror and convex mirror with diagram? (ii). Define critical angle?
- (iii). What is spherical mirror? (iv). What is meant by power of lens? write its unit?
- (v). Write the laws of refraction? (vi). What state snell's law and write its formula?
- (vii). Find the critical angle of water if angle is 90° . the refractive index of water is 1.33 and that of air is 1? (viii). Under what conditions will a converging lens form a virtual image?
- (ix). Write conditions for total internal reflection?? (x). Define principle axis and focal length?
- (xi). Define mirror formula? (xii). How does the thickness of lens effect its focal length?

Long Questions.

- 1: (a) Explain refraction through prism?
(b) A concave lens of focal length 6 cm is to be used to form a virtual image three times the size of object. where must the lens be placed?
- 2: (a) What is total internal reflection explain with diagram?
(b) An object 10cm in front of convex mirror forms image of 5cm behind the mirror. what is its focal length?