

Name: _____						
Subject: Physics		Class: 10 <sup>th</sup>	Time: 80 minutes	Total Marks:	40	
Chapter No.		MJDexpert.com			Obtained marks	

**Note:** Please attempt any 10 short questions from Question 2. Also, attempt both parts (a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

### Objective-Section

**Q. 1 Encircle the correct answer. (10x1=10)**

1. Wave theory of light is formulated by:  
(A) Newton (B) Faraday (C) Maxwell (D) Bell
2. In a convex mirror, the focus is:  
(A) Center of the mirror (B) In front of the mirror (C) On the mirror (D) Behind the mirror
3. On which index of refraction depend?  
(A) Focal Length (B) Speed of light (C) Image distance (D) Object distance
4. Refractive index of ice is:  
(A) 1.36 (B) 1.31 (C) 1.33 (D) 1.00
5. The critical angle of water is:  
(A) 49° (B) 53° (C) 55° (D) 59°
6. The endoscope which is used to examine the throat is called:  
(A) Gastroscope (B) Bronchoscope (C) Cystoscope (D) None
7. If the image is virtual, then its distance from the lens is taken:  
(A) Positive (B) Negative (C) Double (D) Half
8. Number of lenses used in a slide projector is:  
(A) 1 (B) 2 (C) 3 (D) 0
9. At night we can see the stars in the sky without a telescope:  
(A) 300 (B) 3000 (C) 30000 (D) 300000
10. The change in the focal length of the eye lens is called:  
(A) Modification (B) Induction (C) Accommodation (D) Distinct Vision

### Subjective-Section

**Q.2 Write short answers of any ten of the following questions: (10x2=20)**

- i. Write the laws of reflection of light.
- ii. Difference between regular and irregular reflection.
- iii. Explain concave mirror and convex mirror with a diagram.
- iv. Define principle axis and principle focus.
- v. If  $p=6p = 6p=6$  cm,  $f=10f = 10f=10$  cm and the mirror is concave, find qqq.
- vi. Define refraction with a diagram.
- vii. Describe the laws of refraction.
- viii. Define refractive index.
- ix. Define critical angle.
- x. What is the difference between a real and a virtual image?
- xi. Explain the use of a lens in a camera.
- xii. What is the difference between short-sightedness and long-sightedness?

**Q.No.3 Long Question: (5+5=10)**

- a) Explain refraction of light by a glass block with the help of a diagram.
- b) Define total internal reflection and explain it.