PSBB LEARNING LEADERSHIP ACADEMY

2020-2021

CLASSWORK ASSIGNMENT 2

GRADE- VIII SUBJECT –SCIENCE

LIGHT

I. Differentiate between

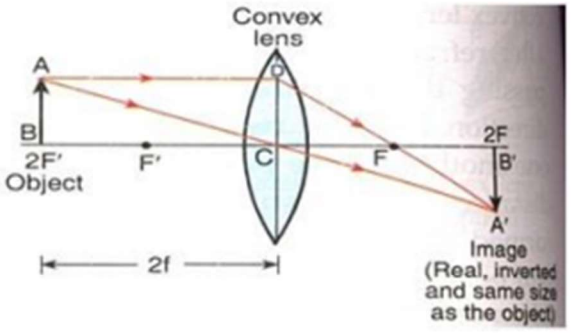
a)Difference Between Real Image and Virtual Image	
Real Image	**Virtual Image**
Real images are inverted	Virtual images are erect
Real images are formed on the screen	Virtual images appear to be on the lens or the mirror itself
Real images are formed due to the actual intersection of light rays	Virtual images are formed due to the imaginary intersection of light rays

b) Difference between Hypermetropia and myopia

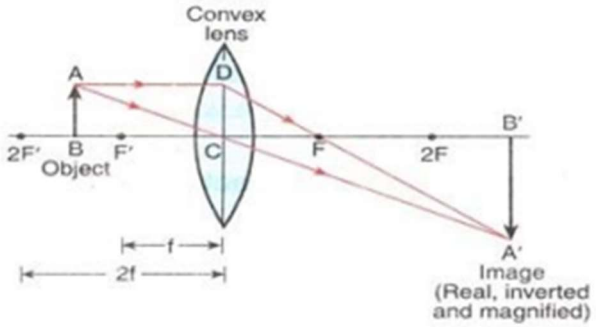
HYPERMETROPIA	MYOPIA
• Able to see faraway objects and not the near ones • Also known as far sightedness • The image falls behind the retina of the eye • Caused due to shortening of eyeball/less converging power of eye lens • It can be corrected by double convex lens of suitable focal length	• Able to see close or nearby objects but not far away ones • Also known as short sightedness • The image falls in front of the retina of the eye • Caused due to elongation of eye ball/high converging power of eye lens • It can be corrected by concave lens of suitable focal length

II. Draw ray diagram to show image formation by a convex lens in the following cases.

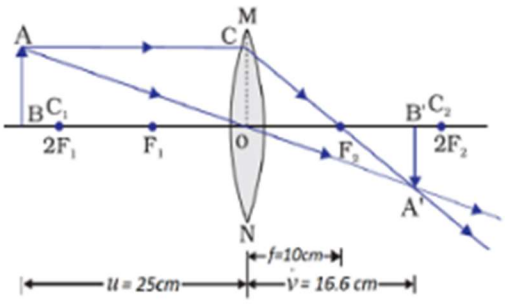
a) The object is at 2F



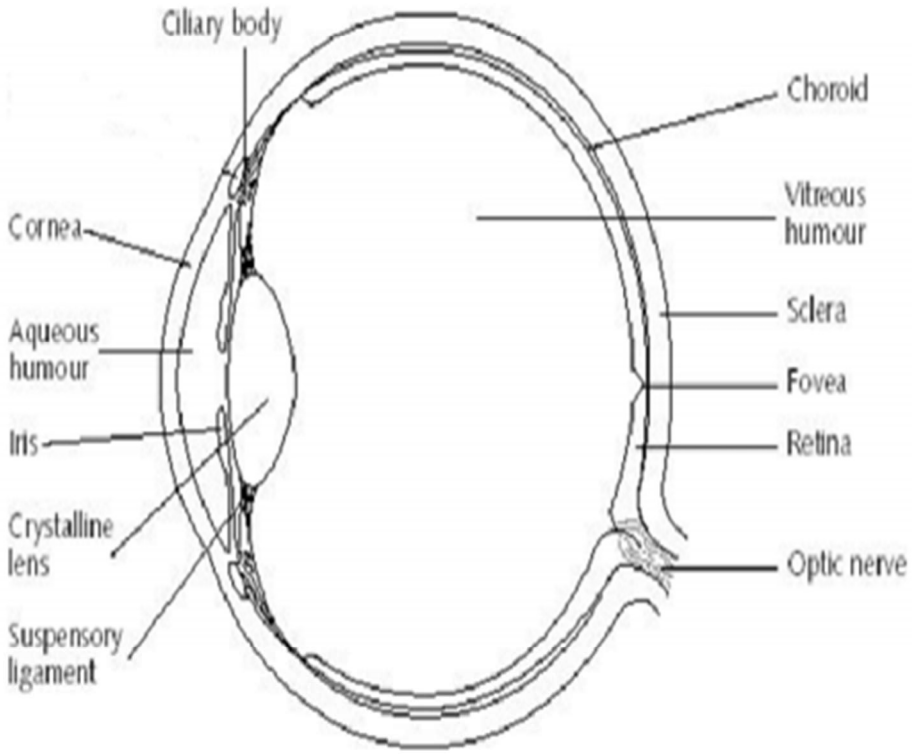
b) The object between F and 2F



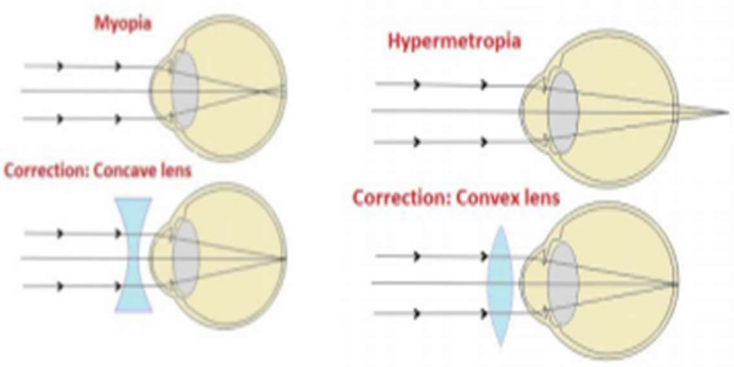
c) The object beyond 2f



III. Draw a neat labeled diagram to show structure of Human Eye



IV. Draw diagrams to show defects and corrections of eye.



3. Why is spectrum formed by Prism and not by glass slab?

ANS: This is because the opposite faces of a glass slab a parallel to each other. A prism forms spectrum because of it’s shape. The opposite faces are not parallel and during refraction, the white light ray splits into it's constituent colours and spectrum is formed.

4. How many images formed when two mirrors are at a 30 degree angle?

ANS: No. of images formed when two mirrors are placed at an angle

' θ ' is given by the formula: $n = (360° / θ) – 1$

Where, n = no. of images formed

So, $n = (360 / 30) - 1$

$\Rightarrow n = 12 - 1 \Rightarrow n = 11$

∴ There will be 11 images formed when two mirrors are placed at an angle of 30°