

PPSC Physics Topic 4 Geometrical Optics

Sr	Questions	Answers Choice
1	Persistence of vision is the phenomenon of the eye by which an afterimage is thought to persist for approximately one twenty faith of a second on the.	A. Retina B. Heart C. Mind D. Liver
2	For total internal reflection the light rays enter	A. From rarer to denser medium B. From, denser to rarer medium C. Medium of same refractive index D. At an angle 90°
3	Which of the following is used for reducing spherical aberrations in optical instruments.	A. Plano convex lens B. Concave lens C. Spherical mirrors D. Plane mirrors
4	What would be the colour of sky through hour the day .If the earth has no atmosphere.	A. Blue B. Red C. White D. Black
5	Parallel rays of light are focused by a thin convex lens.A thin concave lens of the same focal length is then joined to the convex lens The focal point will.	A. Shift to infinity B. shift towards the lens by a small distance C. shift away from the lens by a small distance D. Remain at its original position
6	When we look at the sky during daytime the light that we see is sunlight that has been absorbed and then re radiated in different directions, This process is called.	A. Scattering B. Diffusion C. Mirage D. Rainbow
7	Which statement about the image formed by a convex lens is correct.	A. It is always real and erect B. It is always real and inverted C. It is always virtual and erect D. It may be either virtual or real
8	Since light rays are always diverged by concave lenses such lenses	A. Cannot form images B. Form only black and white images C. Form only inverted image D. Form only erect images
9	Sunlight can undergo total internal reflection if it enters from	A. Glass to air B. Air to glass C. Air to water D. Water to glass
10	Light rays after passing through is concave lens.	A. Bend away from principal axis B. Bend towards principal axis C. Remain undeviated D. Travel parallel to the principal axis
11	Which of the following are defects in human eye.	A. Myopia B. Hypermetropia C. Presbyopia D. All of these
12	Which of the following quantities is not changed during refraction of light.	A. Its direction B. Its speed C. Its frequency D. Its wavelength
13	Dioptr is the term used for describing the	A. Intensity of light B. Density of air C. Power of light D. Refractive index
14	A convex mirror is used to reflect light from an object placed 66 cm in front of the mirror. The focal length of the mirror is 46 cm Find the location of the image.	A. 23 cm B. -23 cm C. -27 cm D. 27 cm
15	The main advantage of step index fiber is.	A. The size of the cable B. The equality of the cable C. Difference in the wavelengths of

signals
D. All of the above

16 Two convex lens focal length 'f' use in combination become telescope. When the distance between them is.

- A. 1
- B. 4f
- C. 2f
- D. f/2

17 An image formed on the film of camera is

- A. Real , inverted and diminished
- B. Virtual, inverted and diminished
- C. Real upright and diminished
- D. Virtual, upright and diminished

18 The relation between refractive index and critical angle is.

- A. $\sin C = 1/n$
- B. $\sin n = 1/C$
- C. $\sin c = 1$
- D. $n = \sin C$

19 Short sightedness in the eye occurs due to the.

- A. Contraction of eyeball
- B. Increases in focal length of eye lens
- C. Reduction in focal length of eye lens
- D. Reduction in distance between retina and eye lens

20 Power of the lens is one dioptre, if its focal length is.

- A. 1/6 metre
- B. 1/2 metre
- C. 1 metre
- D. 8 metre