# ECAT Pre General Science Physics Chapter 9 Physical Optics

| Sr | Questions | Answers Choice |
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| 1 | The magnifier forms a virtual image of the object at: | A. None of these<br>B. Both A and B are correct<br>C. Much farther than the least distance<br>D. Least distance of distinct vision |
| 2 | Electromagnetic waves transport: | A. Energy only<br>B. Momentum only<br>C. Both A and B are correct<br>D. None of is correct |
| 3 | The ratio of the diameter of two convex lenses is _____-the ratio of their focal lengths: | A. Greater than<br>B. Less than<br>C. Equal to<br>D. None of these |
| 4 | Light appears to travel in straight line because | A. It is not absorbed by the atmosphere<br>B. It is refracted by the atmosphere<br>C. Its wavelength is very small<br>D. Its velocity is very large |
| 5 | If the object and its image are located at a distance of 5 cm from the focus of a convex lens, the focus length of the lens will be: | A. 5 cm<br>B. 10 cm<br>C. 20 cm<br>D. 25 cm |
| 6 | To see the minor details of the object by microscope, it should have: | A. High magnifying power<br>B. High resolving power<br>C. Am objective of larger focal length<br>D. None of these |
| 7 | The locus of all points in a medium having same phase of vibration is called | A. Crest<br>B. Trough<br>C. Wavelength<br>D. Wave-front |
| 8 | The ratio of the size of the image to that of object is called: | A. Focal length<br>B. Aperture<br>C. Linear magnification<br>D. Principal axis |
| 9 | Frequency of red color as compared to that of violet color is: | A. Equal<br>B. Smaller<br>C. Greater<br>D. None of these |
| 10 | In case of point, source of light shape of wavefront is: | A. Spherical<br>B. Cylindrical<br>C. Plane<br>D. None of these |
| 11 | The cause of mirage observed in deserts in bright sunlight is due to | A. Refraction of light<br>B. Reflection of light<br>C. Scattering of light<br>D. Total internal reflection of light |
| 12 | In an interference pattern of Young's double slit(YDS) experiment: | A. Bright fringesare wider than dark fringes<br>B. Dark fringes are wider than bright fringes<br>C. Both dark and bright fringes are of equal width<br>D. <br> Central fringes are wider than the outer fringes |
| 13 | The velocity of light in vacuum can be changed by changing | A. Frequency<br>B. Amplitude<br>C. Wavelength<br>D. None of these |
| 14 | A convex lens acts as diverging lens when the object is placed: | A. Between F and 2F<br>B. At 2F<br>C. With focal length |

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| | | D. Beyond 2F |
| 15 | The appearance of the colour in the soap (oil) film results from: | A. Dispersion<br>B. Interference<br>C. Reflection<br>D. Refraction |
| 16 | A convex lens acts as diverging lens when the object is placed: | A. Beyond 2F<br>B. At 2F<br>C. With focal length<br>D. Between F and 2F |
| 17 | When the object lies between F and 2F, the image formed by is formed at: | A. Real<br>B. Virtual<br>C. Diminished<br>D. Erect |
| 18 | In case of destructive interference of two waves, the amplitude of the resultant wave will be ____ either of the waves: | A. Greater than<br>B. Smaller than<br>C. Equal to<br>D. None of these |
| 19 | Huygen principle is used to determine: | A. Speed of light<br>B. Location of wavefront<br>C. About polarized or unpolarized light<br>D. None of them |
| 20 | The locus of all the points in the same phase of vibration is called: | A. Wave packet<br>B. Wave front<br>C. Wave number<br>D. None of them |