# ECAT Pre General Science Physics Chapter 10 Optical Instruments

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Monochromatic light means wave of | A. Same frequency<br>B. Same colour<br>C. Same Wavelength<br>D. All of them |
| 2 | Huygen's principle states that | A. Light travels in straight line<br>B. Light has dual nature<br>C. Either of these<br>D. None of these |
| 3 | Electromagnetic waves transport | A. Energy only<br>B. Momentum only<br>C. Both A and B<br>D. None is correct |
| 4 | When the source of light is at very large distance, the shape of wavefront is | A. Spherical<br>B. Cylindrical<br>C. Plane<br>D. None of these |
| 5 | Light has | A. Wave nature<br>B. Dual nature<br>C. Particle nature<br>D. None of them |
| 6 | In case of point source of light, shape of wavefront is | A. Spherical<br>B. Cylindrical<br>C. Plane<br>D. None of above |
| 7 | The locus of all the points in the same phase of vibration is called | A. Wave pocket<br>B. Wavefront<br>C. Wave number<br>D. None of these |
| 8 | Wavelength of light, on the average, is given by | A. 10<sup>-14</sup>m<br>B. 10<sup>-10</sup>m<br>C. 10<sup>-6</sup>m<br>D. 10<sup>-4</sup>m |
| 9 | Two sources are said to be coherent if they have | A. Same amplitude<br>B. Same wavelength<br>C. Definite phase relation with each other<br>D. None of them |
| 10 | In YDS experiment, fringe spacing means the distance between two consecutive _____ fringes | A. Bright<br>B. Dark<br>C. Any of A or B<br>D. None of these |
| 11 | In an interference pattern of Young's Double Slit (YDS) experiment | A. Bright fringes are 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. Central fringes are wider than the outer fringes |
| 12 | The appearance of colours in the soap (or oil) film results from | A. Dispersion<br>B. Interference<br>C. Reflection<br>D. Refraction |
| 13 | Angle between ray of light and the corresponding wavefront is | A. 0<sup>0</sup><br>B. 60<sup>0</sup><br>C. 90<sup>0</sup><br>D. 120<sup>0</sup> |
| 14 | The appearance of colours in the soap (or oil) film results from | A. Dispersion<br>B. Interference<br>C. Reflection<br>D. Refraction |

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| 15 | Laws of reflection and refraction can also be explained by | A. Particle nature of light<br>B. Quantum nature of light<br>C. Wave nature of light<br>D. Complex nature of light |
| 16 | Huygen principle is used to determine | A. Speed of light<br>B. Location of wavefront<br>C. About polarized and unpolarized light<br>D. None of them |
| 17 | Speed of light in vacuum depends upon | A. Frequency<br>B. Wavelength<br>C. Amplitude<br>D. None of these |
| 18 | The wave nature of light was proposed by | A. Newton<br>B. Thomas Young<br>C. Huygen<br>D. None of these |
| 19 | In case of constructive interference of two waves, the amplitude of the resultant wave is _____ either of the waves | A. Greater than<br>B. Equal to<br>C. Smaller than<br>D. None of these |
| 20 | Light waves are | A. Transverse waves<br>B. Longitudinal waves<br>C. Compressional<br>D. None of them wave |