

Physics ECAT Pre Engineering Chapter 10 Optical Instruments

Sr	Questions	Answers Choice
1	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
2	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional D. None of them wave
3	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
4	The locus of all the points in the same phase of vibration is called	A. Wave pocket B. Wavefront C. Wave number D. None of these
5	The terms phase difference and path difference are	A. Same B. Different C. Equal D. none of these
6	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
7	A line which represents the direction of travel of a wave is known as	A. Spherical wavefront B. Locus C. Ray D. Either B or C
8	In case of constructive interference of two waves, the amplitude of the resultant wave is _____ either of the waves	A. Greater than B. Equal to C. Smaller than D. None of these
9	Angle between ray of light and the corresponding wavefront is	A. 0° B. 60° C. 90° D. 120°
10	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
11	To observe interference of light, the condition, which must be met with is that the sources must be	A. Monochromatic B. Phase coherent C. Both of above D. None of above
12	The wave nature of light was proposed by	A. Newton B. Thomas Young C. Huygen D. None of these
13	The property of light which does not change with the nature of the medium is	A. Frequency B. Amplitude C. Wavelength D. None of these
14	In YDS experiment, fringe spacing means the distance between two consecutive _____ fringes	A. Bright B. Dark C. Any of A or B D. None of these
15	Which one of the followings can act approximately as a source of monochromatic light	A. Neon lamp B. Fluorescent tube C. Sodium lamp D. All of them

D. None of these

16 Wavelength of light, on the average, is given by

- A. 10^{-14} m
- B. 10^{-10} m
- C. 10^{-6} m
- D. 10^{-4} m

17 In an interference pattern of Young's Double Slit (YDS) experiment

- A. Bright fringes are wider than dark fringes
- B. Dark fringes are wider than bright fringes
- C. Both dark and bright fringes are of equal width
- D. Central fringes are wider than the outer fringes

18 Monochromatic light means wave of

- A. Same frequency
- B. Same colour
- C. Same Wavelength
- D. All of them

19 Electromagnetic waves transport

- A. Energy only
- B. Momentum only
- C. Both A and B
- D. None is correct

20 In case of destructive interference of two waves, the amplitude of the resultant wave will be _____ either of the waves.

- A. Greater than
- B. Smaller than
- C. Equal to
- D. None of these