

ECAT Pre General Science Physics Chapter 10 Optical Instruments Online Test

Sr	Questions	Answers Choice
1	Light has	A. Wave nature B. Dual nature C. Particle nature D. None of them
2	Light waves are	A. Transverse waves B. Longitudinal waves C. Compressional D. None of them wave
3	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
4	Electromagnetic waves transport	A. Energy only B. Momentum only C. Both A and B D. None is correct
5	Light waves are	A. Mechanical waves B. Electromagnetic waves C. Any of above D. None of above
6	Which one of the followings can act approximately as a source of monochromatic light	A. Neon lamp B. Fluorescent tube C. Sodium lamp D. None of these
7	Wavelength of red colour as compared to that of violet colour is	A. Smaller B. Longer C. Equal D. None of these
8	Frequency of red colour as compared to that of violet colour is	A. Equal B. Smaller C. Greater D. None of these
9	Monochromatic light means wave of	A. Same frequency B. Same colour C. Same Wavelength D. All of them
10	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
11	Angle between ray of light and the corresponding wavefront is	A. 0 ⁰ B. 60 ⁰ C. 90 ⁰ D. 120 ⁰
12	Huygen principle is used to determine	A. Speed of light B. Location of wavefront C. About polarized and unpolarized light D. None of them
13	In case of point source of light, shape of wavefront is	A. Spherical B. Cylindrical C. Plane D. None of above
14	Speed of light in vacuum depends upon	A. Frequency B. Wavelength C. Amplitude D. None of these
15	When the source of light is at very large distance, the shape of wavefront is	A. Spherical B. Cylindrical C. Plane

The speed of the secondary wavelets as mentioned in Hugen's principle is			D. None of these
17 Laws of reflection and refraction can also be explained by C. Wave-mature of light C. Complex nature of light D. None of these D. None	16	The speed of the secondary wavelets as mentioned in Huygen's principle is the speed of propagation of the wave itself	B. Greater than C. Smaller than
18 The wave nature of light was proposed by 19 Huggen's principle states that 20 Aline which represents the direction of travel of a wave is known as 21 The property of light which does not change with the nature of the medium is 22 The appearance of colours in the soap (or oil) film results from 23 The appearance of colours in the soap (or oil) film results from 24 The appearance of colours in the soap (or oil) film results from 25 The appearance of colours in the soap (or oil) film results from 26 Reflection 27 The appearance of colours in the soap (or oil) film results from 28 Despersion 29 C. Reflection 20 A Despersion 20 C. Reflection 21 The appearance of colours in the soap (or oil) film results from 22 Despersion 23 Despersion 24 Despersion 25 C. Reflection 26 Reflection 27 To observe interference of light, the condition, which must be met with is that the sources 28 In case of destructive interference of two waves, the amplitude of the resultant wave will be either of the waves. 29 The terms phase difference and path difference are 29 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves. 29 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves. 29 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves. 29 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves. 29 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves. 20 In some of those 21 Destructive interference of two waves, the amplitude of the resultant wave is either of the waves. 29 Destructive interference of two waves, the amplitude of the resultant wave is entered the counter fringes are wider than the outer fringes 29 Destructive interference of two waves, the amplitude of the resultant wave is each of the same wider than the outer fringe	17	Laws of reflection and refraction can also be explained by	B. Quantum nature of light C. Wave nature of light
Huygen's principle states that B. Light has dual nature C. Cither of these D. None of th	18	The wave nature of light was proposed by	B. Thomas Young C. Huygen
A line which represents the direction of travel of a wave is known as B. Loous C. Ray D. Either B or C I he property of light which does not change with the nature of the medium is The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from The appearance of colours in the soap (or oil) film results from A Dispersion B. Interference C. Reflection D. Refraction D.	19	Huygen's principle states that	B. Light has dual nature C. Either of these
21 The property of light which does not change with the nature of the medium is C. Wavelength D. None of these 22 The appearance of colours in the soap (or oil) film results from B. Interference C. Reflection D. Refraction D. Refraction 23 The appearance of colours in the soap (or oil) film results from D. Refraction D. Refraction D. Refraction D. Refraction 24 Two sources are said to be coherent if they have C. Define phase relation with each other D. None of them C. Define phase relation with each other D. None of above D. None of these D. None of these D. None of these D. Reflection D. None of these D. None of these D. None of these D. None of these D. D. None of these D. D. None of these D. D. None of these	20	A line which represents the direction of travel of a wave is known as	B. Locus C. Ray
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The appearance of colours in the soap (or oil) film results from 24 Two sources are said to be coherent if they have 25 To observe interference of light, the condition, which must be met with is that the sources must be 26 In case of destructive interference of two waves, the amplitude of the resultant wave will be either of the waves. 27 The terms phase difference and path difference are 28 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves 29 In an interference pattern of Young's Double Slit (YDS) experiment 29 In an interference pattern of Young's Double Slit (YDS) experiment 30 In YDS experiment, fringe spacing means the distance between two consecutive	22	The appearance of colours in the soap (or oil) film results from	B. Interference C. Reflection
24 Two sources are said to be coherent if they have 25 To observe interference of light, the condition, which must be met with is that the sources must be 26 In case of destructive interference of two waves, the amplitude of the resultant wave will be either of the waves. 27 The terms phase difference and path difference are 28 In case of constructive interference of two waves, the amplitude of the resultant wave is either of the waves 29 In an interference pattern of Young's Double Slit (YDS) experiment 29 In an interference pattern of Young's Double Slit (YDS) experiment 29 In YDS experiment, fringe spacing means the distance between two consecutive 30 In YDS experiment, fringe spacing means the distance between two consecutive A Bright Finges A Bright Finges A Bright B. Dark C. Equal to C. Smaller than D. None of these A Bright D. Central 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 A Bright B. Dark C. Any of A or B	23	The appearance of colours in the soap (or oil) film results from	B. InterferenceC. Reflection
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In case of destructive interference of two waves, the amplitude of the resultant wave will be either of the waves.	25		B. Phase coherentC. Both of above
The terms phase difference and path difference are 28	26		B. Smaller than C. Equal to
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In an interference pattern of Young's Double Slit (YDS) experiment C. Both dark and bright fringes are of equal width D. Central fringes are wider than the outer fringes In YDS experiment, fringe spacing means the distance between two consecutive	28		B. Equal to C. Smaller than
In YDS experiment, fringe spacing means the distance between two consecutive B. Dark C. Any of A or B	29	In an interference pattern of Young's Double Slit (YDS) experiment	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
	30		B. Dark C. Any of A or B

D. None of these