

OBJECTIVE TYPE QUESTIONS

Chapter # 9 **NATURE OF LIGHT**

1. The wave theory of light was proposed by.
(a) Galileo (b) Huygens (c) Kepler (d) Hewton
2. Electromagnetic theory of light was proposed by;
(a) Faraday (b) Maxwell (c) Ampere (d) De
3. Yellow light of a single wavelength can't be:
(a) Reflected (b) Refracted (c) Dispersed (d) Red
4. The characteristic property of light wave which does not vary with the medium is:
(a) Frequency (b) Amplitude (c) Velocity (d) Wave
5. When light is incident on a substance it can be:
(a) Absorbed (b) Reflected (c) Transmitted (d) All of above
6. Color of light is determined by its.
(a) Frequency (b) Amplitude (c) Speed (d) Wavelength
7. A monochromatic red light appears to be.
(a) Blue (b) Red (c) Black (d) White
8. The locus of all points in the same phase of vibration is:
(a) Wave front (b) Interference (c) Diffraction (d) Polarization
9. Huygens theory of light says that light consists of:
(a) Wave fronts (b) Discvek particle (c) Photons (d) dual nature
10. A thin layer of oil on the surface of water looks coloured due to:
(a) Polansation of light. (b) different elements presenting the oil
(c) Interference of light (d) The transmission of light
11. In Newton's rings experiment the piano convex lens used should be of.
(a) Small focal length (b) Large focal length
(c) Neither of the two (d) None of the above
12. In Newton's rings seen throughout reflected light:
(a) The central spot is dark (b) The central spot is dark
(c) Both of above (d) None of the above
13. The phenomenon of interference come out because wave obey:
(a) The impulse moment theorem (b) The 1st law of thermodynamics
(c) The inverse square law (d) The principle of superposition
14. The air between the lens and glass plak the in Newton's rings experiment is replaced by water. The ring pattern.
(a) Contracts (b) Expands
(c) Remains the same (d) None of the above
15. Newton's ring are produced by.
(a) A lighted cigarette falling non uniform acceleration.
(b) A lighted cigarette subject force of several g's interference of light
(c) Interference of light (d) Polarization of light
16. Which of the following phenomenon produce the colors in soap bubble?
(a) Interference (b) Polarization (c) Diffraction (d) Dispersion
17. The path difference in destructive interference must be:
(a) $d = 0, 2\lambda, 3\lambda$ (b) $d = \lambda/2, 3\lambda/2, 5\lambda/2$
(c) $d = 0, \lambda/6, 3\lambda/6, 5\lambda/6$ (d) $d = 0, 3\lambda/4, 5\lambda/4$
18. One condition for interference is that the two sources should be coherent and.
(a) Close together (b) at a far off distance
(c) Opposite to each other (d) Coinciding
19. Width of the interference fringes in young's double slit experiment increase
(a) Slit separation (b) Wave length
(c) order of the fringes (d) frequency of the source
20. The property which enables waves to bend around the edge of an opening or obstacle in its path is called:
(a) Dispersion (b) Diffraction (c) Super position (d) Interference
21. Which of the following are types of diffraction?
(a) Interfering and non interfering (b) Transparent – semi transparent
(c) Fresnel - Fraun hoffer diffraction (d) Gratingy- element attraction
22. Diffraction when source and screen are very near the slit then diffraction is said to be _____ diffraction.
(a) Fresnel (b) Fraunhoffer (c) Maxwell (d) Huygens
23. Which of the following is used to plane polarize light?
(a) A sheet with small opening (b) A thick glass sheet
(c) A plano-convex lens (d) A paper sheet

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b	B	c	a	d	a	b	A	a	c
11	12	13	14	15	16	17	18	19	20
b	b	d	a	c	a	b	A	b	b
21	22	23							
c	a	a							