## Physics Fsc Part 1 Chapter 9 Online Test

| Sr | Questions | Answers Choice |
|----|-----------|----------------|
| 1 | Huygen's proposed, light energy travels in space from source in | A. 1578<br>B. 1678<br>C. 1778<br>D. 1868 |
| 2 | Which of the following is evidence of wave nature of light | A. Interference<br>B. Diffraction<br>C. Polarization<br>D. All of these |
| 3 | Young in 1801 performed experiment for the first time about | A. Interference<br>B. Diffraction<br>C. Polarization<br>D. Particle nature of light |
| 4 | Light waves emitted from a source spread in | A. Specific direction<br>B. All direction<br>C. Upward direction<br>D. None of these |
| 5 | In case of point source the shape of wave front is | A. Circular<br>B. Spherical<br>C. Elliptical<br>D. Square |
| 6 | A ray of light is a line | A. Parallel to wave front<br>B. Normal to wave front<br>C. Anti-parallel to wave<br>D. Any one of these |
| 7 | The distance between two consecutive wave front is equal to | A. One wave length<br>B. Two wave length<br>C. Half wave length<br>D. Three wave length |
| 8 | Oil film floating on water exhibits colours due to | A. Interference<br>B. Diffraction<br>C. Polarization<br>D. All of these |
| 9 | Bright fringes are also called as | A. Minima<br>B. Maxima<br>C. Wave front<br>D. Ray of light |
| 10 | Dark fringes are also called as | A. Minima<br>B. Maxima<br>C. Wave front<br>D. Ray of light |
| 11 | The centre of Newton's rings will be | A. Dark<br>B. Bright<br>C. Coloured<br>D. Not visible |
| 12 | Standard metal according to Michelson's interferometer is equivalent to | A. 1553163.5 wave meter<br>B. 3 x 108meter<br>C. 15503000 meter<br>D. None of these |
| 13 | In young's double slit experiment for the interference the central region will be | A. Dark<br>B. Bright<br>C. Coloured<br>D. None of these |
| 14 | The property of bending of light around obstacles is | A. Interference<br>B. Diffraction<br>C. Polarization<br>D. Superposition |
| 15 | The Bragg's equation is given by | |
| 16 | Interplaner distance can be determined by | A. Newton's rings<br>B. Bragg's law |

| | | |
|---|---|---|
| 16 | Interplanar distance can be determined by | C. Diffraction pattern<br>D. Interferometer |
| 17 | According to Huygen's principle the points on primary wave front can be considered as | A. Secondary wavelets<br>B. Ray of light<br>C. Source of light<br>D. None of these |
| 18 | Soap film is sunlight appears coloured due to. | A. Dispersion of light<br>B. Diffraction of light<br>C. Scattering of light<br>D. Interference fo light |
| 19 | The light energy travels in space as waves was firstly proposed by | A. Maxwell<br>B. Young<br>C. Einsten<br>D. Hydrogen |
| 20 | Angle between ray of light and wave front is | A. $0^o$<br>B. $60^o$<br>C. $90^o$<br>D. $120^o$ |
| 21 | In case of point source the shape of wave front is. | A. Plane<br>B. spherical<br>C. Circular<br>D. Eliptical |
| 22 | the locus of all pint in the same wave of vibration is called. | A. Wave front<br>B. Diffraction<br>C. Interference<br>D. Polarization |
| 23 | A ray of light shows the direction of propagation of light It is line which is. | A. Normal to the wave front<br>B. Parallax to the wave front<br>C. Opposite to the wave front<br>D. Equal to the wave front |
| 24 | Hygen's principle is used for. | A. Explain polarization<br>B. Locate the wave front<br>C. Find the speed of light<br>D. Find the index of refraction |
| 25 | According to Hygen's principle, each point on a wave front acts as a source of. | A. Secondary wavelet<br>B. New wave front<br>C. Sound<br>D. Primary wavelet |
| 26 | The fringe spacing increases if we use. | A. Yellow light<br>B. Green lgiht<br>C. Blue light<br>D. Red light |
| 27 | An oil film on water surface shows colour due to. | A. Diffraction<br>B. Interference<br>C. Polarization<br>D. Dispersion |
| 28 | The blue colour of sky is due to | A. diffraction<br>B. Reflection<br>C. Polarization<br>D. Scattering |
| 29 | Sodium chloride in a flame gives | A. Green light<br>B. White light<br>C. Red light<br>D. Yellow light |
| 30 | Light entering rom air glass does not change in its. | A. Frequency<br>B. Wavelength<br>C. Velocity<br>D. Direction |
| 31 | Fringe spacing is inversely proportional to. | A. Wave length<br>B. Slit separation<br>C. Distance between the slit and screen<br>D. Frequency of light |
| 32 | Fringe spacing in Young's double slit experiment increases due to increase in. | A. Slit separation<br>B. Wave length<br>C. Order of Fringe<br>D. Frequency of source |
| 33 | The fringe spacing in a double slit experiment can be increased by decreasing. | A. Wavelength of light<br>B. Width of slits<br>C. Slit separation<br>D. Distance between the slits and the screen |

| 34 | In blue light is used as compare to red light then fringe spacing. | A. Increase<br>B. Decreases<br>C. Remain same<br>D. Becomes zero |
|---|---|---|
| 35 | In red light is used as compare to blue light then fringe spacing. | A. Decreases<br>B. Remain same<br>C. Increases<br>D. Becomes zero |
| 36 | Example of thin film is. | A. Soap burble<br>B. convex lens<br>C. Concave lens<br>D. Glass plate |
| 37 | The centre of Newton's fringe is dark due to. | A. Destructive interference<br>B. Diffraction<br>C. Constructive interference<br>D. Polarization |
| 38 | Newton's rings are formed due to phenomenon of. | A. Interference<br>B. Dispersion<br>C. Diffraction<br>D. Polarization |
| 39 | When newton ring are seen through the transmitted light, then central spot is. | A. Dark<br>B. Blue<br>C. Bright<br>D. Red |
| 40 | When one mirror of a Michelson interferometer is moved a distance of 0.5 mm, 2000 fringes and observed, The wavelength of light used is. | A. 5000 m<br>B. 50000 A$^o$<br>C. 500 cm<br>D. 2000 A$^o$ |
| 41 | Michelson's interferometer can be used ot find the | A. Velocity of light<br>B. Wavelength of light<br>C. Velocity of sound<br>D. Wavelength of sound |
| 42 | Bending of light around the edges of an obstacle is called. | A. Refraction<br>B. Polarization<br>C. Interference<br>D. Diffraction |
| 43 | A typical diffraction grating has certain number of lines per centimeter whose range is. | A. 40 to 50<br>B. 400 to 5000<br>C. 400 to 500<br>D. 4000 to 5000 |
| 44 | If 'N' is number of lines rule don the grating having length 'L' then grating element 'd' is given by. | A. N/L<br>B. 2N/L<br>C. L/N<br>D. N/2L |
| 45 | The wavelength of X-rays is of the order of. | A. $10^{-8}$ m<br>B. $10^{-10}$ m<br>C. $10^{-5}$ m<br>D. $10^{-4}$ m |
| 46 | X-ray diffraction has been very useful in determining the structure of | A. Hemoglobin<br>B. Stars<br>C. Galaxies<br>D. Stones |
| 47 | Sound waves can not be | A. Reflected<br>B. Refracted<br>C. Polarized<br>D. Diffracted |
| 48 | The process of confining the beam of light to vibrate in one plane is called. | A. Interference<br>B. Diffraction<br>C. Polarization<br>D. Total internal refraction |
| 49 | Which phenomenon of light proves that light waves are transverse in nature. | A. Refraction<br>B. Reflection<br>C. Diffraction<br>D. Polarization |
| 50 | The phenomenon of polarization of light reveals that sun light is | A. Longitudinal waves<br>B. Transverse wave<br>C. Electromagnetic waves<br>D. Monochromatic wave |
| 51 | The distinguish between transverse and longitudinal wave_____ is used. | A. Refraction<br>B. Interference<br>C. Diffraction |

| 52 | Which one of the following can not be polarized. | A. Ultra violet rays<br>B. Radio waves<br>C. T.V. Waves<br>D. Sound waves |
| 53 | Intensity of light depend on | A. Wave length<br>B. Amplitude<br>C. Velocity<br>D. Frequency |
| 54 | Which is nooptically active | A. Sugar<br>B. Tartaric acid<br>C. Water<br>D. Sodium chloride |