

## MDCAT Physics Chapter 7 Light Online Test

| Sr | Questions                                                                                                                                                                       | Answers Choice                                                                                                                                 |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Most widely used optical fibres are those which propagate light by                                                                                                              | A. total internal reflection<br>B. continuous refraction<br>C. both of them<br>D. none of them                                                 |
| 2  | The light signal in an optical fibre is totally confined due to the                                                                                                             | A. total internal reflection<br>B. continuous refraction<br>C. both of them<br>D. either of them                                               |
| 3  | The light signal in an optical fibre requires that the light should                                                                                                             | A. be partially confined within the fibre<br>B. be totally confined within the fibre<br>C. not be confined within the table<br>D. none of them |
| 4  | Propagation of light in an optical fibre requires that the light should                                                                                                         | A. be partially confined within the fibre<br>B. be totally confined within the fibre<br>C. not be confined within the table<br>D. none of them |
| 5  | The diameter of an optical fibre with its protective case may be typically                                                                                                      | A. 7.62 cm<br>B. 67.62 mm<br>C. 6.0 mm<br>D. 90 mm                                                                                             |
| 6  | The information carrying capacity in an optical fibre is called                                                                                                                 | A. wavelength<br>B. frequency<br>C. bandwidth<br>D. none of them                                                                               |
| 7  | For a system to transmit thousands of telephones conversations, several television programs and numerous data signals, it need the following number so threads of optical fibre | A. 100 to 200<br>B. 1000 to 10000<br>C. 100 to 1000<br>D. 1 or 2                                                                               |
| 8  | Which of the following cannot be polarized?                                                                                                                                     | A. x-rays<br>B. light rays<br>C. sound waves<br>D. ultraviolet rays                                                                            |
| 9  | When light passes through a tourmaline crystal, it becomes                                                                                                                      | A. plane polarized<br>B. directly polarized<br>C. un-polarized<br>D. spherically polarized                                                     |
| 10 | Reflection of light from water, glass, snow and rough road surfaces, for larger angle of incidences, produces                                                                   | A. images<br>B. bright images<br>C. interference<br>D. glare                                                                                   |
| 11 | Which of the following phenomenon cannot take place if we consider light as longitudinal wave?                                                                                  | A. diffraction<br>B. interference<br>C. polarization<br>D. reflection                                                                          |
| 12 | Which property of waves proves that light is a transverse wave?                                                                                                                 | A. diffraction<br>B. interference<br>C. polarization<br>D. reflection                                                                          |
| 13 | The materials which are used in selective absorption method to polarize the light are                                                                                           | A. chronic substances<br>B. organic substances<br>C. inorganic substances<br>D. diachronic substance                                           |
| 14 | Which of the following is the most common method to obtain polarized light?                                                                                                     | A. selective absorption<br>B. reflection from different surfaces<br>C. refraction through crystals<br>D. scattering by small particles         |
| 15 | If the vibrations of the light wave are confined to one plane only, then this light is called                                                                                   | A. unpolarized lighth<br>B. polarized light<br>C. sunlight<br>D. none of them                                                                  |

|    |                                                                                                         |                                                                                                                |
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|    |                                                                                                         | D. none of them                                                                                                |
| 16 | The light which has components in all directions is called                                              | A. unpolarized light<br>B. polarized light<br>C. intense light<br>D. none of them                              |
| 17 | Ordinary light has components of vibrations in                                                          | A. one direction only<br>B. two directions<br>C. four directions<br>D. all directions                          |
| 18 | In light waves, the components of electric and magnetic fields are                                      | A. parallel to each other<br>B. anti-parallel to each other<br>C. right angle to each other<br>D. none of them |
| 19 | A light wave produced by oscillating charge consists of a periodic variation of                         | A. electric field<br>B. magnetic field<br>C. either of them<br>D. both of them                                 |
| 20 | The wavelength of light is $6000\text{ \AA}$ , the number of waves contained in 0.01 m distance will be | A. $1.6 \times 10^4$<br>B. $3 \times 10^3$<br>C. $2 \times 10^6$<br>D. $4 \times 10^8$                         |