

# LIGHT, HEAT, THERMODYNAMICS, WAVE MOTION, SOUND, OPTICS & OSCILLATIONS BASED GENERAL SCIENCE MCQ PRACTICE QUESTIONS AND ANSWERS PDF WITH EXPLANATION

For All Competitive SSC, Bank, IBPS, UPSC, Railway, IT & Other Govt. Exams

Created By [Careericons](http://careericons.com) Team

---

**Q1.** Magnification produced by a rear view mirror fitted in vehicles

- a) is equal to one
  - b) is less than one
  - c) is more than one
  - d) can be more than or less than one depending upon the position of the object in front of it
- 

**Q2.** Consider the following statements:

- Two bodies in contact must be in thermal equilibrium.
- A tightly closed metal lid of a glass bottle can be opened more easily if it is put in hot water for sometime.
- The coefficient of expansion of metal lid is greater than that of glass.

Which of the statements are correct?

- a) 2 and 3
  - b) 1 and 3
  - c) 1 and 2
  - d) 1, 2 and 3
- 

**Q3.** The least distance of distinct vision of a normal eye of an adult is

- a) 25 mm
  - b) 25 m
  - c) 25 cm
  - d) None of these
-

**Q4.** For seeing a cricket match, we prefer binoculars to the terrestrial telescope, because

- a) to avoid chromatic aberration
- b) binoculars give three-dimensional view
- c) terrestrial telescope gives inverted image
- d) to have larger magnification

**5000+ FREE GENERAL SCIENCE MCQ QUESTION BANK FOR ALL SSC, UPSC, BANK, RAILWAY EXAMS**

[Free Practice MCQs »](#)

[Download More PDF »](#)

[Free Online Quiz »](#)

**Q5.** An oscilloscope is an instrument which allows us to see waves produced by

- a) X-rays
- b) Visible light
- c) Sound
- d) Gamma rays

**Q6.** Which of the following radiations has the highest energy per quantum?

- a) 280-320 nm
- b) 200-280 nm
- c) 320-400 nm
- d) 400-600 nm

**Q7.** Bats can ascertain distance, directions, nature and size of the obstacles at night. This is possible by reflection of the emitted

- a) ultrasonic waves from the distant objects
- b) ultrasonic waves from the bat
- c) supersonic waves from the bat
- d) supersonic waves from the distant objects

---

**Q8.** An air bubble inside water behaves as a

- a) Divergent lens
  - b) Convergent lens
  - c) Bifocal lens
  - d) Cylindrical lens
- 

**Q9.** Total internal reflection can take place only if

- a) the refractive indices of the two media are close to different
  - b) light goes from optically rarer medium to optically denser medium
  - c) light goes from optically denser medium to rarer medium
  - d) the refractive indices of the two media are widely different
- 

**Q10.** Consider telecommunication through optical fibres. Which of the following statements is not true ?

- a) Optical fibres may have homogeneous core with a suitable cladding
  - b) Optical fibres are subject to electromagnetic interference from outside
  - c) Optical fibres have extremely low transmission loss
  - d) Optical fibres can be of graded refractive index
- 

**Q11.** Water has maximum density at

- a)  $-4^{\circ}\text{C}$
  - b)  $0^{\circ}\text{C}$
  - c)  $32^{\circ}\text{F}$
  - d)  $4^{\circ}\text{C}$
- 

**Q12.** Consider the following phenomena.

- Size of the Sun at dusk
- Colour of the Sun at dawn

- Moon being visible at dawn
- Twinkle of stars in the sky
- Polestar being visible in the sky

Which of the above are optical illusions?

- a) 1, 2 and 4
- b) 3, 4 and 5
- c) 1, 2 and 3
- d) 2, 3 and 5

**1000+ FREE LIGHT, HEAT, THERMODYNAMICS, WAVE MOTION, SOUND, OPTICS & OSCILLATIONS BASED QUESTIONS AND ANSWERS FOR ALL COMPETITIVE EXAMS**

[Free Practice MCQs »](#)

[Download More PDF »](#)

[Free Online Quiz »](#)

**Q13.** Consider the following statements:

- Steam at  $100^{\circ}\text{C}$  and boiling water at  $100^{\circ}\text{C}$  contain same amount of heat.
- Latent heat of fusion of ice is equal to the latent heat of vaporization of water.
- In an air-conditioner, heat is extracted from the room air at the evaporator coils and is rejected out at the condenser coils.

Which of these statements is/are correct?

- a) 2 and 3
- b) 1 and 2
- c) Only 2
- d) Only 3

**Q14.** The frequency of a wave travelling at a speed of  $500\text{ ms}^{-1}$  is  $25\text{Hz}$ . Its time period is

- a) 25 s
- b) 20 s
- c) 0.05 s
- d) 0.04 s

**Q15.** The regions of compressions and rarefrations of sound wave are-established because

- a) the reflected sound wave at fixed end interferes with the incident wave
- b) the sound wave undergoes diffraction behind obstacles
- c) the longitudinal movement of air molecules produce pressure fluctuations
- d) the speed of the sound wave changes as it travels through a medium

[Read More light heat thermodynamics wave sound optics oscillation Question and Answers »](#)

**Answers to the above questions :**

**Q1. Answer: (b)**

**Q2. Answer: (d)**

A metal is a good conductor of heat and electricity while glass on the other hand is a poor conductor of heat.

**Q3. Answer: (c)**

**5000+ GENERAL SCIENCE MCQ TOPIC WISE MCQ QUESTION BANK WITH SOLVED ANSWERS & FREE PDF**

[MEASUREMENT AND SI UNITS](#)

[MEASURING DEVICES AND SCALES](#)

[MECHANICS \(MASS, FORCE, ACCELERATION, WORK, ENERGY, MOMENTUM, VELOCITY\)](#)

[FORCE OF GRAVITY, SOLIDS AND FLUIDS](#)

[MOTION UNDER GRAVITY](#)

[PHYSICAL PROPERTIES OF MATERIALS](#)

[LIGHT, HEAT, THERMODYNAMICS, WAVE MOTION, SOUND, OPTICS & OSCILLATIONS](#)

[ELECTRIC CURRENT AND MAGNETISM](#)

[NUCLEAR PHYSICS AND CONDUCTIVITY](#)

MODERN AND SPACE PHYSICS, SOURCES OF ENERGY

GENERAL CONCEPTS OF CHEMISTRY

NATURE OF MATTER AND COMPOSITION

ATOMIC STRUCTURE MOLECULES AND NUCLEAR CHEMISTRY

CLASSIFICATION OF ELEMENTS, CHEMICAL BONDING, PERIODICITY IN PROPERTIES & PHYSICAL TRANSFORMATION

METALS, NON METALS, MINERALS, ORES, PROPERTIES, USES

ALLOYS, CARBON & ITS VARIOUS FORMS, HYDROGEN & COMPOUNDS, SULPHUR, NITROGEN, HALOGEN & INERT GASES

ACIDS, BASES, SALTS AND METALS

HYDROCARBON, ALCOHOL, POLYMER, ORGANIC ACID AND EXPLOSIVE SUBSTANCE

FUEL, FOOD PRESERVATION, NUTRITION, MEDICINE, DETERGENTS AND FERTILIZERS

INORGANIC CHEMISTRY

ORGANIC CHEMISTRY

ENVIRONMENTAL CHEMISTRY

SOME IMPORTANT MAN MADE MATERIALS

SUB DIVISIONS OF BIOLOGY

GENETICS, EVOLUTION OF LIFE & ECOLOGICAL BIODIVERSITY

TAXONOMY

HEREDITY

BIOFERTILIZER

BIOLOGICAL CLASSIFICATION CELL TISSUES AND DIVISION

HUMAN ANATOMY

BLOOD TRANSPORT SYSTEM

DIGESTION AND EXCRETION

PHOTOSYNTHESIS

VITAMINS, NUTRITION, HEALTH, DISEASE AND TREATMENT

ENDOCRINE GLANDS, HORMONES

PHYSIOLOGY OF PLANTS, HUMANS AND ANIMALS

REPRODUCTION

FOOD PRODUCTION

BIOLOGY IN HUMAN WELFARE

ECOLOGY AND ENVIRONMENT AWARENESS

GENETIC ENGINEERING AND BIO TECHNOLOGY

**Q4. Answer: (b)**

**Q5. Answer: (c)**

**Q6. Answer: (b)**

**Q7. Answer: (b)**

**Q8. Answer: (a)**

**Q9. Answer: (c)**

According to Snell's Law,

$$\frac{\sin i}{\sin r} = \mu_2/\mu_1$$

where  $r = 90^\circ$  for a particular incidence angle called the critical angle. When the incidence angle is equal to or greater than  $i_c$ , then total internal reflection occurs.

It takes place when a ray of light travels from an optically denser medium ( $\mu_1 > \mu_2$ ) to an optically rarer medium.

**Q10. Answer: (b)**

Optical fibres are free from electromagnetic interference from outside.

**Q11. Answer: (d)**

Water has maximum density at  $4^\circ\text{C}$ .

**Q12. Answer: (a)**

**Q13. Answer: (d)**

**Q14. Answer: (d)**

**Q15. Answer: (c)**

On our site **Careerions.com**, You can find all the content you need to prepare for any kind of exam like. **Verbal Reasoning, Non-Verbal Reasoning, Aptitude, English, Computer, History, Polity, Economy, Geography, General Science, General Awareness** & So on. Make use of our expert-curated content to get an edge over your competition and prepare for your exams effectively.

Practice with our **Free Practice MCQs, Mock Tests Series, Online Quiz** and get an idea of the real exam environment. Keep track of your progress with our detailed performance reports. They are perfect for competitive exam preparation, as well as for brushing up on basic & fundamental knowledge. The questions are updated regularly to keep up with the changing syllabuses.