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 Team

Q1. Consider the following statements:

- A flute of smaller length produces waves of lower frequency.
- Sound travels in rocks in the form of longitudinal elastic waves only.

Which of the statements given above is/are correct?

- a) 1 and 2 both
- b) 1 only

c) 2 only

d) None

Q2. Consider the following statements.

Assertion (A):

Space based solar power (SBSP), it is suggested be made a national goal.

Reason (R):

Supply of SBSP is 99% uninterrupted throughout the year, besides the enormity of energy availability.

Select the correct answer using the codes given below.

Code

a) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

b) (A) is true, but (R) is false

c) Both (A) and (R) are true and (R) is the correct explanation of (A)

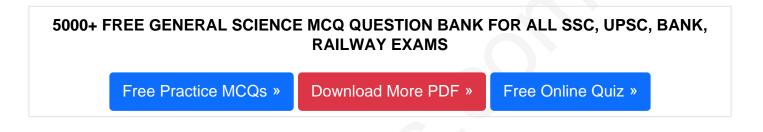
d) (A) is false, but (R) is true

Q3. The bulb of one thermometer is spherical, while that of other is cylindrical. If both of them have equal amount of mercury, which thermometer will respond quickly to the temperature?

- a) elliptical bulb
- b) spherical bulb
- c) cylindrical bulb
- d) both (a) and (c)

Q4. When water is heated from 0°C to 20°C, how does its volume change?

- a) It shall decrease
- b) It shall increase
- c) It shall first increase and then decrease
- d) It shall first decrease and then increase



Q5. Light is made of seven colours. What is the method of separating the colours?

- a) The colours can be separated by plants
- b) The colours can be separated by a filter
- c) The colours can be separated by a prism
- d) The colours cannot be separated

Q6. The minimum height of a plane mirror to see the full size image of a person is equal to

- a) One-fourth the height of the person
- b) Half the height of the person
- c) The height of the person
- d) Double the height of the person

Q7. _____ is the characteristic of a musical sound by which a loud sound can be distinguished from a faint sound even though both have the same pitch.

a) Quality

- b) Loundness
- c) Pitch
- d) None of these

Q8. Match the Column - I and Column - II

Column I	Column II
A. Audible range in humans	P. greater than 20,000 Hz
B. Ultrasonic waves	Q. 20 Hz – 20,000 Hz
C. Infrasonic waves	R. 1498 m/s
D. Speed of sound in water (distilled)	S. 343.2 m/s
E. Speed of sound in air	T. less than 20 Hz

Choose the correct option from the codes given below for (A), (B), (C), (D) and (E). a) A-Q; B-P; C-T; D-R; E-S

b) A-Q; B-P; C-T; D-S; E-R

c) A-P; B-Q; C-T; D-R; E-S

d) A-Q; B-T; C-P; D-R; E-S

Q9. Assertion (A):

Reveraberation mainly feels in large churches and in other large buildings. **Reason (R):**

The walls, roof and ground may cause multiple sound reflections. Code

- a) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- b) (A) is true, but (R) is false
- c) Both (A) and (R) are true and (R) is the correct explanation of (A)
- d) (A) is false, but (R) is true

Q10. The correct order of colours in a rainbow is

a) Blue, yellow, green

- b) Violet, green, blue
- c) Blue, green, violet
- d) Blue, green, yellow

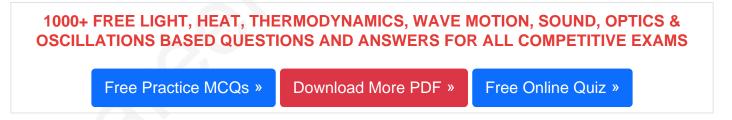
Q11. The nature of radiation of light is

a) Like both of wave and particle

- b) Like particle
- c) Like wave
- d) Like neither of wave nor of particle

Q12. A bimetallic strip consists of brass and iron. When it is heated it bends into an arc with brass on the convex and iron on the concave side of the arc. This happens because

- a) it is easier to bend an iron strip than a brass strip of the same size
- b) brass has a higher specific heat capacity than iron
- c) density of brass is more than that of iron
- d) brass has a higher coefficient of linear expansion than iron



Q13. Which one of the following changes occurs when salt is added into the water?

- a) Boiling point is decreased and freezing point is increased
- b) Both boiling point and freezing point are decreased
- c) Boiling point is increased and freezing point is decreased

Q14. Which one of the following statement is not true for a person suffering from hypermetropia?

a) The image of the close objects is focused behind the retina

- b) The focal length of the lens is large
- c) The person can see far objects distinctly
- d) A concave lens is used to correct this defect

Q15. In the visible spectrum the colour having the shortest wavelength is

- a) violet
- b) green
- c) red
- d) blue

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Answers to the above questions :

Q1. Answer: (c)

The flute is a musical instrument of the woodwind family.

A flute of smaller length produces waves of higher frequency. Sound waves travel through medium even through an extremely dense medium like rocks in the form of longitudinal waves only.

A good example is the shock wave from an Earthquake, which can be heard hundreds of miles away from the epicentre after travelling through rocks in the ground.

Q2. Answer: (c)

Q3. Answer: (c)

As the surface area of cylindrical bulb is larger than a spherical bulb, heat will be transmitted quickly through a cylindrical bulb and it will respond quickly to the temperature.

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Q4. Answer: (d)

Q5. Answer: (c)

Q6. Answer: (b)

Q7. Answer: (b)

Q8. Answer: (a)

Q9. Answer: (c)

Q10. Answer: (d)

Q12. Answer: (d)

It is so because brass has a higher coefficient of linear expansion.

Q13. Answer: (c)

Q14. Answer: (d)

Q15. Answer: (a)

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