

KOTHARI INTERNATIONAL SCHOOL, NOIDA
HALF YEARLY EXAMINATION, SESSION: 2025-26
GRADE: 8 SUBJECT: SCIENCE
SET B SECTION B (SUBJECTIVE)

DAY & DATE: TUESDAY, 9 SEPTEMBER 2025

MAXIMUM MARKS: 60

NAME: _____

TIME ALLOTTED: 1 HOUR 30 MIN

ROLL NO: _____

GENERAL INSTRUCTIONS:

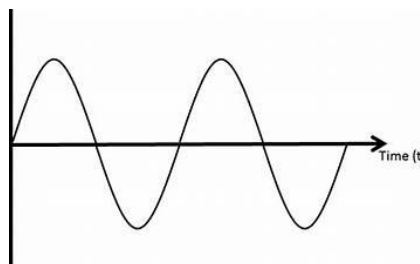
- i). *This question paper contains 22 questions. All questions are compulsory.*
- ii). *Section A : Question Nos.1 to 10 carries 2 marks each.*
- iii). *Section B : Questions Nos. 11 to 20 carries 3 marks each.*
- iv). *Section B : Questions Nos. 21 to 22 carries 5 marks each.*
- v). *There is no overall choice.*

SECTION A

Q1. a) A petroleum refinery is compared to a “tower of separation”. Justify this statement with the name of the process that leads to refining. **(1)**

b) Which of the following is associated with Petroleum – Bitumen, Coke, Peat, Charcoal. **(1)**
Write one use of it.

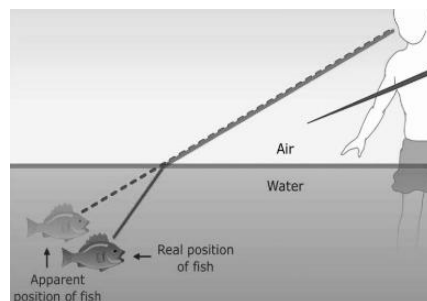
Q2. a) A wave is represented in a diagram with crests and troughs. If the wave is made faster without changing the medium, what changes will be observed in its frequency and wavelength? Explain. **(1)**



b) What is the speed of a sound wave with frequency 2000Hz and wavelength 0.4m? **(1)**

Q3. A farmer observes a fish in a pond. The fish appears closer to the surface than it really is. **(2)**

Explain why this happens and how it could affect the fisherman’s aim.



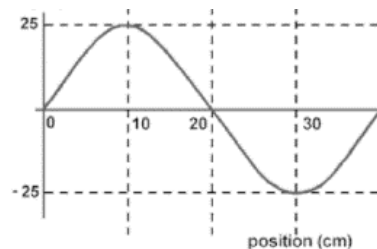
Q4. While moving from a cinema hall to bright sunlight, Ria experiences difficulty in seeing for a short while. Is this effect temporary or permanent? **(1)**

Explain this phenomenon in above situation. **(1)**

Q5. The picture represents a wave.

a) Write the measurement of Amplitude and Wavelength as per the picture. (1)

b) Define time period. (1)



Q6. Identify the vibrating part of the following: (2)

a) Drums

b) Saxophone

Q7. Write two point of difference between Echo and Reverberation. (2)

Q8. Farmers often rotate crops like wheat and pulses. Explain how this practice benefits the soil without the need for chemical fertilizers of nitrogen. (2)

Q9. Sound wave travel in the air with the speed of about 300 m/s. (1)

a) Calculate wavelength of sound whose frequency is 600 Hertz.

b) Name the part of ear which amplifies sound. Give reason for this action. (1)

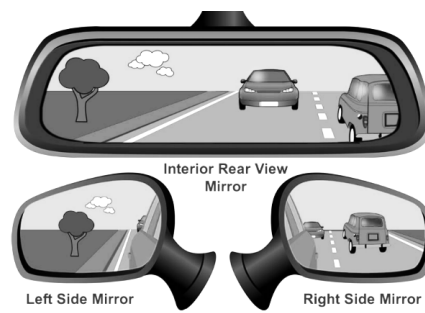
Q10. Wood has a high calorific value but is still discouraged as a fuel. If wood continues to be used excessively, what long-term effects might it have on the environment? (2)

SECTION B

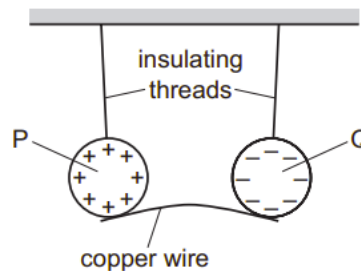
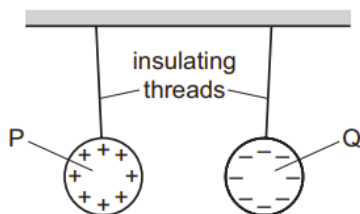
Q11. Observe the image seen by the driver on a highway. Answer the following questions.

a) Which type of mirrors are used in rear view? (1)

b) Write two characteristics of this mirror. (2)



Q12. The diagram shows two charged metal spheres, P and Q, suspended from insulating threads. P is positively charged and Q is negatively charged.



The spheres are now joined by a copper wire.

a) What happens due to copper wire? (1)

b) Name the process which takes place. (1)

c) What would be the net charge on the sphere where charge is transferred? (1)

Q13. a) Asin was cooking noodles and suddenly from blue flame of fuel she saw yellow flame for brief period of time. What can you conclude from this? (1)

b) Find calorific value of a fuel whose 1.5 Kg of mass produces 6000 KJ of heat on burning completely. (2)

Q14. Look at the pictures of the micro-organisms and answer the questions that follow.



a) Which micro-organism does A represent? (1)

b) Name two insects that are responsible for spreading B. (1)

c) Out of these three organisms which one acts as a “parasite”? (1)

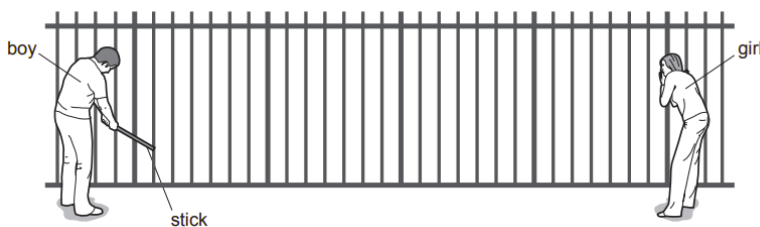
Q15. Once we hold a magnifying glass over text and identify the distance where we see the text becomes bigger than it is.

a) Which type of lens is a magnifying glass? (1)

b) Write two characteristics of this lens. (1)

c) Apart from magnifying glass, where do we use this lens? (1)

Q16. A boy strikes a rigid metal fence with a stick to create a sound along the fence.

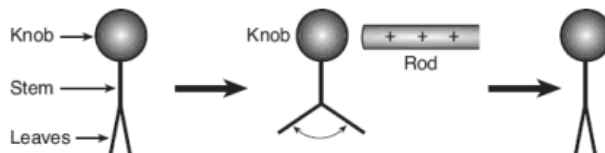


a) If the girl forgets her hearing aid, which virtue of sound will help her to check that stick was hit onto the rigid metal fence? (1)

b) The boy hears two sounds with small interval in between. Explain. (2)

Q17. The working of a device is shown in the diagram below is made completely of metal and consists of a knob, a stem, and leaves.

A positively charged rod is brought near the knob and then removed.



a) Name this device. (1)

b) Explain the working and basic principle behind this device. (2)

- Q18.** Your family is planning to travel to another city where mosquito-borne disease is prevalent.
- a) Which microorganism is responsible for cause of malaria? (1)
- b) Write two precautions that should you and your family will take during the trip? (2)
- Q19.** a) If air and cloud were good conductors of electricity, lightning would not occur Explain. (1)
- b) If the materials used for constructing a building were good conductors, do you think lightning will strike the building. Will the lightning conductor be still required to be installed in the building? (2)
- Q20.** a) We cannot hear the sound of the exploding meteors in the sky, though we can see them. Why? (1)
- b) Explain the role of ear in hearing and understanding sound produced by an object. (2)

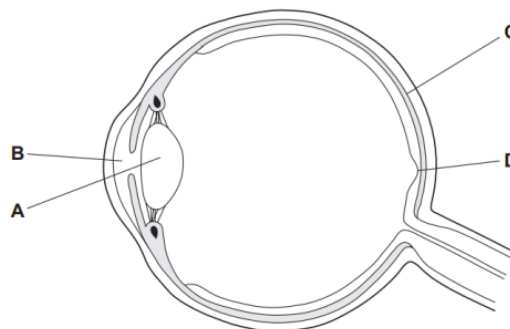
SECTION C

- Q21.** The diagram shows a section through the human eye.
- i) Name the part where:

- a) Sensory cells are present
b) provides unique color to the eye

ii) Which defect is shown in the picture, if the image is formed – X?

iii) Which defect is observed when the lens becomes cloudy? How can we correct it?



- Q22.** a) There are three factors which supports burning. Name them and which factor gets affected by fire extinguisher? (2)
- b) Rashi was heating ghee to cook food. The ghee all of a sudden caught fire; he poured water to extinguish the fire.
- i) Do you think this action was suitable. If yes, why? If not, why not? (1)
- ii) In such condition, what should Reshma have done? (2)