

Instructions

- Total score in the question paper is 30. Answers of best written questions / sub questions, for 20 score, are evaluated.

Question number 1 to 5 (1 score for each question)

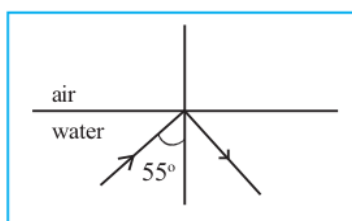
- The image formed by a concave lens is always.....
(diminished, same size of the object, magnified)
- Find the odd one from the group?
(Peat, lignite, coke, bituminous coal)
- What is the colour seen at the upper edge of the rainbow?
- What is the main component of LPG?
- Which is the most abundant fossil fuel on the earth?

Question number 6 to 9 (2 score for each question)

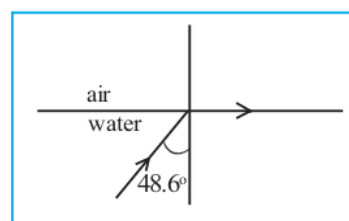
- Classify the energy sources under suitable columns
Solar energy, coal, Nuclear energy, Tidal energy

Green Energy	Brown Energy

- Give reason.
 - Newton’s colour disc appeared white, when rotated fast.
 - Red colour has been given to the tail lamps of vehicles and signal lights.
- Observe the figures and answer the following questions.



(a)



(b)

- Which figure shows total internal reflection?
 - What is the critical angle of water?
- Give two suggestions for reducing energy crisis?

Question number 10 to 12 (3 score for each question)

10) Analyse the given table and answer the questions.

Medium	Speed of light (m/s)
Vacuum	3×10^8 m/s
Water	2.25×10^8 m/s
Glass	2×10^8 m/s (approximately)
Diamond	1.25×10^8 m/s

- Which medium has highest optical density?
- Which medium has lowest optical density?
- When light passes obliquely from water to glass, the refracted ray.....
(**deviates towards the normal, deviates away from the normal, not deviate**)

11) Arrange the table suitably.

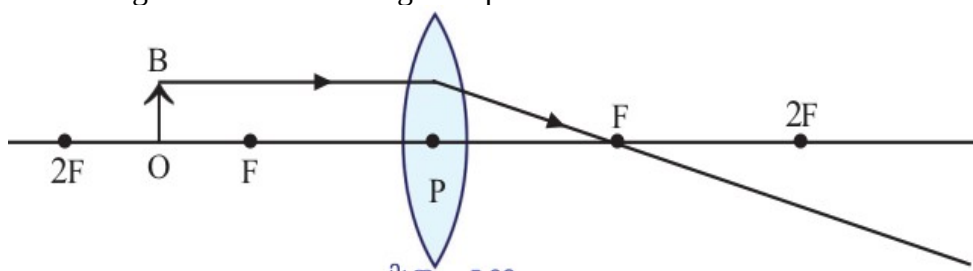
Endoscope	Scattering
Blue colour of the sky	Dispersion
Rainbow	Total internal reflection

12) For some persons, even though nearby objects can be seen clearly, they may not be able to see distant objects clearly.

- Name the defect of their eye?
- What change may happens to the power of their eye lens?
- What is the remedy for this defect?

Question number 13 to 14 (4 score for each question)

13) Observe the figure and answer the given questions



- Complete the ray diagram of image formation?
- Write two features of the image?

14) As shown in the figure, a child is doing experiment by passing sunlight through a glass prism. Complete his observations related to the experiment.



- colour is deviated most.
- colour is deviated least.
- What is the relation between the wavelength of the colours and their deviation?
- This phenomenon of splitting up of sunlight, into its constituent colours is called.....