DELHI PUBLIC SCHOOL, DURGAPUR
QUESTION BANK FOR PERIODIC ASSESSMENT-II (2018-19)
CLASS-VIII
SUBJECT: PHYSICS

TOPIC- LIGHT

1. Explain briefly the refraction through a parallel sided glass slab?
2. Why sun appears red in colour during sun rise and sun set?
3. Define lateral inversion, regular refraction.
4. What do you mean by real and virtual image?
5. Where does the image form in our eye?
6. Which part of eyes is controlled by iris?
7. Which lens is used in camera?
8. Give reasons-
   a) A concave lens is also known as a diverging lens?
   b) An object seen through a prism appears coloured.
   c) It is not possible to see an object clearly if it is kept too close to the eye?
9. What are the uses of kaleidoscope?
10. Why we use red colour as danger signal?
11. Why does sky appear blue on a clear day?
12. How rainbows are formed?
13. Why a straight stick which is immersed partly in water always looks to be bent at the surface of water?
14. Why the Optical illusions such as mirage and looming are produced?
15. Define refractive index. What is its S.I. unit?
16. Give the rules for getting the direction of bending of a ray of light after refraction.
17. Define optically denser medium and optically rarer medium.
18. What is blind spot?
19. What is the far point and near point of the human eye with normal vision?
20. Define angle of incidence?
21. How should we care our eyes? Write any three.
22. In which type of eye defect far point of the eye gets reduced?
23. Why do you take time to find object when you enter in dim lighted room from outside in the sun?
24. Why does ray of light splits when passed from prism?
25. Why do stars twinkle?
26. Why doesn't planet appear to be twinkling?
27. Why does the sky appear dark instead of blue to an astronaut?
28. Why we can't see things very close to our eyes?
29. What is meant by power of accommodation of the eye?
30. A person with a myopic eye cannot see objects beyond 1.2 m distinctly. What should be the type of the corrective lens used to restore proper vision?
31. A student has difficulty reading the blackboard while sitting in the last row. What could be the defect the child is suffering from? How can it be corrected?
32. What eye defect is hypermetropia? Describe with a ray diagram how this defect of vision can be corrected by using an appropriate lens.

33. A student cannot see a chart hanging on a wall placed at a distance of 3 m from him. Name the defect of vision he is suffering from. How can it be corrected? Draw ray diagrams for the (i) defect of vision and also (ii) for its correction
34. A person cannot read newspaper placed nearer than 50 cm from his eyes. Name the defect of vision he is suffering from. Draw a ray diagram to illustrate this defect. List its two possible causes. Draw a ray diagram to show how this defect may be corrected using a lens of appropriate focal length.
35. We see advertisements for eye donation on television or in newspapers. Write the importance of such advertisement.
36. (a) What is dispersion of white light? What is the cause of this dispersion? Draw a diagram to show the dispersion of white light by a glass prism
(b) a glass prism is able to produce a spectrum when white light passes through it but a glass slab does not produce any spectrum. Explain why?
37. The image formed on retina is inverted but we can see the objects erect. Why?
38. Distinguish between Presbyopia and Hypermetropia
39. Draw a well labeled diagram of human eye.

NUMERICALS-

1. Calculate the number of images formed by plane mirror kept an angle of 30^0 to each other?
2. A person needs a lens of power of -5.5 dioptres for correcting his distant vision. For correcting his near vision he needs lens of power +1.5 dioptre. What is the focal length of the lens required for correcting (i) distant vision, and (ii) near vision?
3. How many images will be formed if we place two plane mirrors at an angle of 90°, 60°.
4. Light enters from air to glass plate having refractive index 1.50. What is the speed of light in the glass? The Speed of light in vacuum is 3×10^8 m/s.

TOPIC- HEAT

1. Define the following terms:-
Sublimation, evaporation, solidification. Condensation, fusion, melting point, vapourisation.
2. What happen to the density of a body when temperature increases and decreases?
3. What is latent heat?
4. A small metal rod is placed in a hot oven and heated to 100 degrees C. What happens to the rod?
5. If you put a piece of chocolate in your mouth and it melts, what mechanism is used to melt the chocolate?
6. Why can't something get colder than Absolute Zero?
7. Describe why packing your materials into the cooler box tightly provides an advantage over loosely packed insulation
8. Describe how molecules move differently in a solid, liquid, and a gas? Tell how this changes when energy is added.

9. A student has two identical glasses of milk except that the temperature of the milk in one glass is 40°F and the temperature of the milk in the other glass is 80°F
The milk at which temperature has more thermal energy?
10. What is a bi-metallic strip?
11. What is Boiling Point?
12. What is Melting Point?
13. A patient suffering from high fever is advised to put a strip of wet clothes on forehead. Explain why?
14. Give two applications of evaporation.
15. Why are volatile liquids like spirits and alcohol stored in tightly closed bottles?
16. Why stem burn more than boiled water?
17. Explain how a human body maintains a constant temperature of 98.4° F even when the outside temperature varies.

SYLLABUS:-

1. LIGHT
2. HEAT

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