REFLECTION OF LIGHT AT CURVED SURFACES

1. Explain the terms related to spherical mirrors.
2. How do you get a virtual image using a concave mirror /
3. Write the relaiton between f and R ?
4. Write the sign convention for the use of mirror equation.
5. What is meant by magnification ?
6. Distinguish between real and virtual image ?
7. Draw suitable rays by which which we can guess the position of the image formed by concave mirror.
8. Write mirror formula.
9. Describe the images formed by concave mirror when object is placed at different positions in front of it .
10. Write the uses of convex and concave mirrors.
11. Describe the formation of images due to convex mirror .
12. How do you find the focal length of a concave mirror ?
13. The magnification produced by a plane mirror is +1. what does this mean.
14. Write differences between convex and concave mirror.
15. Why do we prefer a convex mirror as a rearview mirror in vehice ?
16. List out the materials required to observe the types of images and measuring the object distance from concave mirror. Explain the experimental procedure.
17. What happens if concave mirrors are used as rear view mirrors of vehicles ?
18. An object is placed infront of concave mirror whose magnification is +1.75. what does it mean.
19. An object is placed at 12 cm distance from the pole of concave mirror and the image formed at 4 cm from the pole. Find the focal length of the mirror ?
20. Is the focal length of the mirrors are same in all media ? guess.
21. What type of mirrors are used in vehicle head lamps. Write two uses of them in dialy life.
22. The focal length of a convex mirror is 50 cm then calculate its radius of curvature .

REFRACTION OF LIGHT AT CURVED SURFACES

1. Write lens formula
2. Write lens makers formula.
3. Draw suitable rays by which can guess the position of the image formed by convex lens and concave lens.
4. What is lens ? write about the types of lenses.
5. Describe the image formation by convex lens for various positions of the object and write characteristics of image for each case.
6. How do you differentiate between convex and convace lens.
7. A convex lens is made up of three different material. How many images does it form.
8. How do you find focal length of a lens experimentally ?
9. How do you verify experimentally that the focal length of a convex lens is increased when it is kept in water.

10. Can virtual image be photograped by camera?

11. Two converging lens are to be placed in the path of parallel rays so that the rays remains parallel after passing through both lenses. How should the lenses be arranged ? explain with neat ray diagram.

12. Is the focal length of a lens is same in all media ? predict.

13. Write uses of convex and concave lens in dialy life.

14. How light rays behave when passing through optic center of convex lens and concave lens.

15. What happens if concave lens is used as magnifier instead of convex lens in microscope.

16. Magnification of an image formed due to convex lens is -1.5. guess and write the position of object and image.

HUMAN EYE AND COLOURFUL WORLD

1. Explain the working of the parts in human eye.
2. What is meant by least distance of distinct vision.
3. What is meant by far point
4. How do your appreciate the role of molecules in atmosphere for the blue color of the sky
5. What is meant by near point.
6. What is meant of accommodation of eye lens
7. What is meant by myopia . describe the correction.
8. Write expression for refractive index of prism
9. What is meant by hypermetropia . describe the correction.
10. What is meant by presbyopia . describe the correction.
11. What is meant by power of lens?
12. How do you appreciate the working of ciliary muscles in the eyes.
13. Doctor advised to use 2D lens. What is its focal length.
14. Suggest an experiment to produce rainbow in your class room and explain procedure.
15. Describe the formation of rainbow.
16. Define dispersion of light and scattering of light.
17. Why does the sun appear reddish early in the morning? Why does the sky appear dark instead of blue for astronauts.
18. If we increase the distance of an object from the eye, what happens to the image distance in the eye ?
19. We will not able to see the things clearly when we come out of dark room, why ?
20. What happens if ciliary muscles does not function well ?
21. What part of the eye controls light that enters into eye. How does it work?
22. Write two situations in day to day life where we observe dispersion of light ?

ELECTRIC CURRENT

1. Write the important features of drude and lorentz theory.

2. What is meant by electric current.
3. What is meant by potential difference
4. What are ohmic and non ohmic materials.
5. Write differences between potential difference and emf
6. Write the limitations of ohms law
7. What is specific resistance
8. What is resistance
9. What do you mean by electric shock
10. Why do we consider tungsten as suitable material for making the filament of a bulb
11. State the kirchhoff's laws
12. What is electric power
13. What is 1KWH
14. Why do we use fuses in household circuits
15. State ohms law.suggest an experiment to verify it and explain the procedure.
16. Explain overloading of household circuit.
17. Why don't we use series arrangement of electrical appliances like bulb, tungsten, fan and other domestic circuits.
18. Draw a circuit diagram for circuit in which two resistors A and B are connected in series with a battery and voltmeter is connected to measure the potential difference across the resistor.
19. Deduce the expression for equivalent resistance of three resistors connected in series.
20. Deduce the expression for equivalent resistance of three resistors connected in parallel.
21. How do you that resistance of conductor es proportional to the length of the conductor for constant cross section area and temperature.
22. Two resistances 4 and 8 ohms are connected to get least resistance then find resultant resistance in the circuit
23. Are the head lights of a car connected in series or parallel
24. What happens if a high melting point conductor is used as a fuse in house hold connections
25. Do electric bulbs in houses and decorative bulbs are connected in the same way.
26. In a house hold circuit 220 voltage and 440 ohms of resistance are connected then find the electric current.

ELECTROMAGNETISM
1. Define right hand thumb rule
2. Are the magnetic lines closed ? explain
3. The direction of current flowing in a coil is shown in figure. What type of magnetic pole is formed at the face that has flow of current as shown figure.
4. List the properties of magnetic lines of force.
5. How do you verify experimentally that the current carrying conductor when it is kept in magnetic field.
6. Write the working of electric motor with a neat diagram

7. Draw a neat diagram of an AC generator.
8. Give a few applications of Faraday's law of induction in daily life
9. Define the following a. magnetic flux b. magnetic flux density c. lenzs law d. faradays law
10. List out the materials required for the Oersted experiment of electromagnetism. Write the procedure of experiment . what do you understand by this experiment
11. Explain faradays law of induction with the help of activity
12. Draw magnetic field lines around a bar magnet
13. Write a note on working of induction stove