Question Bank

1 marks questions

Q1] a mendelian experiment consisted of breeding pea plants bearing violet flowers with pea plants bearing white flowers. What will be the result in $F_1$ progeny?

Q2] write the energy conversion that takes place in a hydropower plant.

Q3] state the nature of the lens in human eye and name the part responsible for adjusting its focal length.

Q4] name the phenomenon responsible for the reddish appearance of the sun during sunrise and sunset.

Q5] name the part of the human eye where image of an object is formed. Write one characteristic (real, virtual, erect, inverted) of the image.

Q6] name the colour of light for which the angular deviation is (*i)* maximum (*ii)* minimum.

Q7] what is the structure and function of iris in human eye?

Q8] define dispersion of white light.

Q9] a student suffering from an eye defect uses lenses of power -0.2D. name the defect of vision he is suffering from and the nature of the lens used.

Q10] list two phenomena involved in the formation of a rainbow.

Q11] name two common refractive defects of vision.

Q12] state the reason of deviation of constituent colours of light at different angles when white light passes through a glass prism.

Q13] state two reasons for the need of conservation of forest and wildlife.

Q14] list one social and one environmental problem due to which the environmentalists protested against raising the height of the 'Sardar Sarovar Dam' on the river Narmada.

Q15] what is renewable source of energy?

Q16] which fossil fuel is generally referred to as clean fuel and why?

Q17] what is a good fuel?

Q18] why are we looking at alternate sources of energy?

Q19] give an example of flower which contains both stamens and carpels.

Q20] mention any one point of difference between pepsin and trypsin.

Q21] define a solar panel.

Q22] name the essential component of solar cooker that produces greenhouse effect inside it.

Q23] write any two limitation of harnessing energy from the winds.

Q24] list two application of solar cells.

Q25] why does a compass needle get deflected when brought near a current carrying conductor?

Q26] under what condition is the force experienced by a currents carrying conductor placed in a magnetic field maximum?

Q27] state the most convenient way of represent a magnetic field of a bar magnet.

Q28] write the most important modification required in AC generate in order to produce direct current.

Q29] write the observation made by Oersted on the basic of his experiment with a current carrying conductor.

Q30] why do two magnetic field lines not cross each other?

2 marks questions

Q1] what are amphoteric oxides? Give two examples.

Q2] draw a ray diagram showing the path of rays of light when it enters with oblique incidence (i) from air into water (ii) from water into air

Q3] what is biodiversity? What will happen if biodiversity of an area is not preserved?

Q4] an element X has mass number 35 and the number of neutrons, is 18. Identify the group number and period of X.

Q5] why is there a need to harness non-conventional sources of energy? Give two main reasons.

Q6] name the electric device that converts mechanical energy into electrical energy. Draw the labelled diagram and explain the principle involved in this device.

Q7] state two laws of refraction.

Q8] list four advantages associated with water stored in the ground.

Q9] name the type of mirror used in solar furnaces. How is high temperature achieved by this device?

Q10] what is reuse strategy? Why is this strategy considered better than the recycle strategy? Give an example to justify your answer.

Q11] what is a homologous series of carbon compounds? Which two of the following carbon compounds belongs to the same homologous series?

$CH_4O$, $C_2H_6O_2$, $C_2H_5O$, $C_2H_6O$

Q12] write two limitations of harnessing energy from waves and tides.

Q13] list two advantages and two disadvantages of using solar cooker for domestic purposes.

Q14] what are decomposers? What would be the consequences if all the decomposers were eliminated from the Earth? List any three consequences.

Q15] write one similarity and one dissimilarity between aldehydes and ketones.

Q16] list four characteristics of a good source of energy.

Q17] what is an ecosystem? Why do we need regular cleaning of an aquarium whereas natural ponds and lakes do not require such activities?

Q18] list two major environmental consequences of burning fossil fuels. Suggest two steps to minimise the pollution caused by burning of fossil fuels.

Q19] explain why there are grater chances of accumulation of harmful chemicals, such as DDT, in the body of human beings.

Q20] what is nuclear waste? State the main hazard of this waste on the living organisms.

Q21] "industrialisation is one of the main causes of deterioration of the environment". Give an example to justify this statement.

Q22] with the help of an example explain the term esterification.

Q23] monoculture of a particular type of trees is no substitute for natural forests. Give two reasons to justify this statement.

Q24] what are isomers? Write the structures of two isomers of butane, $C_4H_{10}$.

Q25] what are decomposers? Write a major consequence of their absence in an ecosystem.

Q26] write the chemical name of baking soda. What happens when it is heated? List two uses of baking soda.

Q27] government of India is imposing ban on the use of polythene bags for shopping. List four advantages of using cloth or jute bags over polythene bags.

Q28] why are forests considered "biodiversity hotspots"? list two ways in which we as individuals can effectively contribute to the management of forests and wildlife.

Q29] what are biodegradable and non-biodegradable substances?

Q30] list two advantages associated with water harvesting at the community level.

3 marks questions

Q1] explain different ways to induce current in a coil.

Q2] Name two energy sources that you would consider to be renewable. Give reasons for your choices.

Q3] explain corrosion with an example. List four different ways that are used to prevent corrosion.

Q4] a white salt on heating in a boiling tube gives brown fumes and a residue is left behind.

I) Name the salt and the residue.
II) Write the balanced chemical equation for the reaction and name the type of reaction.

Q5] give three practical applications of neutralisation reaction.

Q6] define acids. Explain two chemical properties of an acid and write chemical equation of one example of each.

Q7] Explain the action of dilute hydrochloric acid on the following in chemical equation:

{a}Magnesium Ribbon

{b}sodium hydroxide

{c}Crushed egg shells

Q8] differentiate between strong and weak acids. Identify the strong and weak acids from the following list of acids: Hydrochloric acid, acetic acid, formic acid, nitric acid.

Q9] a} what are the bases which are soluble in water called?

b} write any four uses of bases.

Q10] list three properties of sodium in which it differs from the general physical properties of most metals.

Q11] define the term enzyme. State the role of saliva in human digestive system.

Q12] define hormone. Write four characteristics of hormones in humans.

Q13] give three differences between cerebrum and cerebellum.

Q14] An electric iron has a rating of 750 W; 200V.Calculate:

The current required.

The resistance of its heating element.

Energy consumed by the iron in 2 hours.

Q15] Define magnetic field. Describe an activity to draw magnetic field lines around a bar magnet from one pole to another pole.

Q16] Explain an activity to show that a current carrying conductor experiences a force placed in magnetic field.

Q17] Explain how hydroelectricity is produced.

Q18] A student constructed a box type solar cooker. He found that it is not working efficiently. what could this be due to? Give any four possible mistakes in the construction and operation of the solar cooker. What maximum temperature can ordinarily be reached inside a solar cooker?

Q19] Hydroelectricity generated at a dam may be considered to be another form of solar energy. Why?

Q20] What change can be seen when acids and bases are treated with universal indicator solution?

Q21] A blue litmus paper was first dipped in dil. HCL and then in dil. NaOH solution. What can be observed.

Q22] Give any three reasons that make large scale use of nuclear energy probhitive.

Q23] Name two energy sources that you would consider to be renewable. give reason for your choices.

Q24] Show the breakdown of glucose by three pathways with the help of flowchart.

Q25] Differences between the displacement and double displacement reactions.

Q26] Difference between Metals and Non-metals on the basis of their chemical properties.

Q27] Differences between Metal and Non-metal on the basis of their physical properties.

Q28] Differences between Oxidising agent and Reducing agent.

Q29] Differences between Artery and Vein.

Q30] Difference between Mimosa leaves and Tendril.

5 marks question

Q1] Differences between Nuclear fission and Nuclear fusion.

Q2] {a}Explain two ways by which foo industries prevent rancidity.

{b}Discuss the importance of decomposition reaction in metal industries with three points.

Q3] Identify the compound of calcium which is yellowish white powder and is used for disinfecting drinking water. How is it manufactured? Write the chemical equation for their reaction involved. Mention its two industrial applications.

Q4] Give five distinguishing chemical properties of the metals which are not present in the non-metals.

Q5] What are stomata? What functions do they perform? With the help of a diagram explain opening and closing of stomata.

Q6] draw a diagram of human brain and label fore-brain, hind-brain and mid-brain on it.

Q7] state Ohm's law. How can it be verified?

Q8] describe an activity to demonstrate how magnetic field lines of a bar magnet are drawn using compass needle.

Q9] describe the construction and working of a box type solar cooker with the help of a labelled diagram. Give its advantages and limitations.

Q10] Why are biogas plants considered to be boon to the farmers? Give reasons.