

Brilliant Public School , Sitamarhi



VIII Science Practice Paper

Session : 2012-13

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Science for Class VIII

1. Crop Production and Management

Q 1 Why storage of food is done?

Mark (1)

Q 2 Write any two sources of irrigation?

Mark (1)

Q 3 What are the two common forms by which we add nutrients in soil?

Mark (1)

Q 4 What do you mean by seed drill?

Mark (1)

Q 5 What is sowing?

Mark (1)

Q 6 Why we use tractor driven cultivator for ploughing now a days?

Mark (1)

Q 7 How are disease transmitted in plants?

Mark (1)

Q 8 Name two common examples of agricultural crops.

Mark (1)

Q 9 What is agriculture?

Mark (1)

Q 10 What is crop?

Mark (1)

Q 11 What do you understand by harvesting and threshing?

Marks (2)

Q 12 What is weeding and why is it a necessary process?

Marks (2)

Q 13 What is horticulture?

Marks (2)

Q 14 Differentiate between plough and hoe?

Marks (2)

Q 15 What do you mean by agricultural practices?

Marks (2)

Q 16 What do fisheries include?

Marks (2)

Q 17 What is winnowing?

Marks (2)

Q 18 What is field fallow?

Marks (2)

Q 19 What are Kharif season crops? Give examples.

Marks (2)

Q 20 What are Rabi season crops? Give examples.

Marks (2)

Q 21 What do you understand by the term preparation of soil?

Marks (3)

Q 22 What do you mean by animal husbandry and what it's use?

Marks (3)

Q 23 What are the various safety measures use for store the grain for longer time?

Marks (3)

Q 24 What do you understand by weeds. And what are the different methods use by the farmers to remove weeds?

Marks (3)

Q 25 What are the various activities come under agricultural practices?

Marks (3)

Q 26 What are the traditional tools we used for sowing the seeds?

Marks (3)

Q 27 How is tilling or ploughing are useful in agriculture?

Marks (3)

Q 28 Why is it necessary to sow seeds at an appropriate depth and distance?

Marks (3)

Q 29 Define irrigation and also mention the traditional and modern methods use for irrigation?

Marks (5)

Q 30 How can we say that manure is better than fertilizers?

Marks (5)

Q 31 Differentiate between fertilizers and manures.

Marks (5)

Q 32 What are the different measures which help to increase crop yield?

Marks (5)

Most Important Questions

Q 1 Why is crop production and management necessary?

Q 2 In a field if we found that same type of plants are grown in a row, what are they known as? Give one example.

Q 3 On what basis crops can be categorized into two types?

Q 4 What are the two types of cropping patterns which are broadly used?

Q 5 What do you understand by agricultural practices?

Q 6 Mention the basic practices of crop production.

Q 7 What happens in the first step of crop production?

Q 8 Mention the steps involved in soil preparation?

Q 9 What is done in the process of ploughing?

Q 10 What are the three tools used in soil preparation?

Q 11 Plough is used for various purposes. Mention some of them.

Q 12 What are the two parts of plough?

Q 13 What do you understand by Hoe?

Q 14 Why do we use tractor driven cultivators for ploughing nowadays?

Q 15 What is levelling? How is it done?

Q 16 What do you understand by the term Sowing?

Q 17 Why selection of seeds is necessary before sowing?

Q 18 Name the device that is commonly used for planting seeds in the soil.

Q 19 Why do we use seed drill for sowing?

Q 20 What happens if we do not add the nutrients in soil?

Q 21 What is meant by manure?

- Q 22 What are the applications of manures?
- Q 23 What is meant by fertilizers?
- Q 24 What are the three main types of nutrients present in fertilizers?
- Q 25 How will you define the term irrigation?
- Q 26 What are the traditional methods used for irrigation?
- Q 27 Mention any four sources of irrigation.
- Q 28 What are the two modern methods of irrigation?
- Q 29 Differentiate between sprinkler system and drip system?
- Q 30 How can you differentiate between good and bad seeds by putting them in water?
- Q 31 What is weeding and why is it a necessary process?
- Q 32 What do you understand by the process harvesting and threshing?
- Q 33 What are the various safety measures used for storing the grains for longer time?
- Q 34 What do you understand by weeds?
- Q 35 What is animal husbandry?
- Q 36 How will you define winnowing?
- Q 37 What are the different methods used by the farmers to remove weeds?
- Q 38 Why proper storage of grains is necessary?
- Q 39 Which type of leaves are mainly used for storing food grains at home?
- Q 40 In which areas is fish consumed as a major part of the diet?
- Q 41 What is the best time to remove the weeds?
- Q 42 Why grains should be properly dried before storing?
- Q 43 Why storage of grains is done in silos and granaries on a large scale?
- Q 44 What measures should be taken by the farmers at the time of spraying chemicals on crop?
- Q 45 How is harvesting done in India?

2. Microorganisms : Friend and Foe

Q 1 Who discovered the fermentation?

Mark (1)

Q 2 What do you understand by microorganisms?

Mark (1)

Q 3 "Virus are living or non-living." Comment with reasons.

Mark (1)

Q 4 Mention two important uses of fungi.

Mark (1)

Q 5 In which form microorganisms are used in vaccines?

Mark (1)

Q 6 Who discovered the vaccine for small pox?

Mark (1)

Q 7 Which bacteria is responsible for causing Anthrax disease?

Mark (1)

Q 8 Can we find a place without microbes in nature?

Mark (1)

Q 9 Which microorganism is used in the production of alcohol?

Mark (1)

Q 10 Name any two food items that are prepared using yeast.

Mark (1)

Q 11 Name any three habitats of microorganisms.

Mark (1)

Q 12 Name the bacteria which is involved in the fixation of nitrogen in leguminous plants.

Mark (1)

Q 13 Name the bacteria which is responsible for the formation of curd.

Mark (1)

Q 14 What do you understand by the term 'Pseudopodia'? Give it's one function.

Marks (2)

Q 15 Explain how does blue-green algae help in increasing the fertility of soil.

Marks (2)

Q 16 Name the insects, which carry the parasite of malaria and dengue?

Marks (2)

Q 17 What is to be called as preservatives?

Marks (2)

Q 18 Define pasteurization?

Marks (2)

Q 19 Why generally dry fruits and even vegetables are sold in sealed air tight packets?

Marks (2)

Q 20 What are the causes of food poisoning?

Marks (2)

Q 21 What do you mean by fermentation?

Marks (2)

Q 22 What are communicable diseases? Name few of them.

Marks (2)

Q 23 Mention the causative organism and mode of transmission of the following diseases:

- (i) Tuberculosis
- (ii) Polio
- (iii) Malaria
- (iv) Typhoid
- (v) Hepatitis B
- (vi) Chicken Pox

Marks (3)

Q 24 (i) What are antibiotics?

(ii) How are they manufactured?

(iii) How are they useful to mankind?

Marks (3)

Q 25 (i) What is nitrogen fixation?

(ii) Which organisms are able to fix atmospheric nitrogen?

(iii) What is the need of converting atmospheric nitrogen into compounds of nitrogen?

Marks (3)

Q 26 Draw a diagram of

- (i) Amoeba
- (ii) Paramecium

Marks (3)

Q 27 (i) What are pathogens?

- (ii) How can they enter in our body?

Marks (3)

Q 28 Describe the role of salt, sugar, oil and vinegar in preservation of food?

Marks (3)

Q 29 (i) What are the affects caused by disease causing microorganisms?

- (ii) What measures can be taken to control them?
- (iii) Name some plant diseases with their causative organism.

Marks (3)

Q 30 How can high and low temperature affects the growth of microorganisms?

Marks (3)

Q 31 Describe the useful and harmful effects of microorganisms.

Marks (5)

Q 32 (i) What are communicable diseases?

- (ii) With help of examples explain the spread of diseases through carriers.
- (iii) How can we prevent the spread of malaria and dengue?

Marks (5)

Q 33 (i) What do you understand by the term vaccine?

- (ii) Which diseases can be prevented by vaccination?
- (iii) How coined the term vaccine?

Marks (5)

Q 34 Draw a well labelled diagram of nitrogen cycle?

Marks (5)

- Q 1 Name any three habitats of microorganisms.
- Q 2 Can we find a place without microbes in nature.
- Q 3 Which microorganism is used in the production of alcohol?
- Q 4 Name any two food items that are prepared using yeast.
- Q 5 Name the bacteria which is responsible for the formation of curd.
- Q 6 In which form microorganisms are used in vaccine?
- Q 7 Who discovered the vaccine for small pox?
- Q 8 Who discovered the process of fermentation?
- Q 9 Mention two important uses of fungi.
- Q 10 "Virus are living or non-living." Comment with reasons.
- Q 11 What do you mean by fermentation?
- Q 12 What are preservatives?
- Q 13 Define pasteurization.
- Q 14 Why generally dry fruits and vegetables are sold in sealed air tight packets?
- Q 15 What do you understand by microorganisms?
- Q 16 Explain antibiotics in brief with the help of examples.
- Q 17 Describe the role of sugar, oil and vinegar in preservation of food?
- Q 18 How can high and low temperature affect the growth of microorganisms?
- Q 19 What do you understand by vaccine? Explain in detail.
- Q 20 Mention some useful effects of microorganisms.
- Q 21 Which bacteria are responsible for Anthrax disease?
- Q 22 Name the bacteria which is involved in the fixation of nitrogen in leguminous plants.
- Q 23 Explain how do blue-green algae help in increasing the fertility of soil?
- Q 24 What are communicable diseases? Name some of them.
- Q 25 Name the insects which carry the parasite of malaria and dengue.
- Q 26 What are the causes of food poisoning?

Q 27 Mention the causative organism and mode of transmission of these organism in following diseases.

(i) Tuberculosis

(ii) Polio

(iii) Malaria

(iv) Typhoid

(v) Hepatitis B

(vi) Chicken Pox

Q 28 What is nitrogen fixation? Which organisms are able to fix atmospheric nitrogen?

Q 29 What are the effects caused by disease causing microorganisms? How can they be controlled and name some plant diseases with their causative organism?

Q 30 What are the harmful effects of microorganisms?

Q 31 What are pathogens?

Q 32 What are the different ways through which pathogens enter in our body?

Q 33 What is a carrier?

Q 34 What preventive measures should be taken to avoid common diseases?

Q 35 Why nitrogen fixation is necessary?

Q 36 Draw a well labeled diagram of nitrogen cycle.

3. Synthetic Fibres and Plastics

Q 1 What are natural fibres?

Mark (1)

Q 2 What are synthetic fibres?

Mark (1)

Q 3 Name two natural fibres obtained from plants.

Mark (1)

Q 4 Name two natural fibres obtained from animals.

Mark (1)

Q 5 What is a polymer?

Mark (1)

Q 6 Name a natural polymer.

Mark (1)

Q 7 Name a synthetic fibre which resembles silk.

Mark (1)

Q 8 How is rayon prepared?

Mark (1)

Q 9 Name the first completely synthesized fiber.

Mark (1)

Q 10 Name the raw material used in synthesis of nylon.

Mark (1)

Q 11 Name the repeating units of polyester.

Mark (1)

Q 12 Name two common forms of polyester.

Mark (1)

Q 13 Name the raw materials used for making synthetic fibers.

Mark (1)

Q 14 What are thermoplastics?

Mark (1)

Q 15 What are thermosetting plastics?

Mark (1)

Q 16 Give two examples of thermoplastics.

Mark (1)

Q 17 Give two examples of thermosetting plastics.

Mark (1)

Q 18 Why bakelite is used in making electrical switches?

Mark (1)

Q 19 Name the chemicals which give fruits their characteristic smell.

Mark (1)

Q 20 Name the two different types of plastics.

Mark (1)

Q 21 Name the man made fiber made of wood pulp.

Mark (1)

Q 22 Name the fabric, which resembles wool.

Mark (1)

Q 23 Why nylon is used for making carpet, toothbrush bristles and tyre?

Mark (1)

Q 24 Handles of frying pans are made of plastic. Why?

Mark (1)

Q 25 Electrical wires have covering of plastic. Why?

Mark (1)

Q 26 How are clothes, fabrics and fibres are related to each other?

Mark (1)

Q 27 Name the synthetic fibre which is a cheap substitute of silk.

Mark (1)

Q 28 Why nylon is used in making clothes?

Mark (1)

Q 29 Although rayon is obtained from a natural source, wood pulp, yet it is a man-made fibre. Give reasons.

Marks (2)

Q 30 Nylon is used in making many articles. Name four of them.

Marks (2)

Q 31 Why polyesters are preferred over natural fibres for making dress material?

Marks (2)

Q 32 What is PET? What is its uses?

Marks (2)

Q 33 What are acrylics? What are its uses?

Marks (2)

Q 34 Why one should not wear polyester clothes while working in the kitchen or laboratory?

Marks (2)

Q 35 Why synthetic fibers are preferred as clothing material?

Marks (2)

Q 36 Why melamine is used for making kitchenware and fabrics which resist fire?

Marks (2)

Q 37 Why plastic containers are preferred over containers made of glass and clay for storing foodstuffs?

Marks (2)

Q 38 Acrylic is considered as a cheap substitute of wool. Give reasons.

Marks (2)

Q 39 Define (i) Fabric (ii) Cloth

Marks (2)

Q 40 Write the properties and uses of rayon.

Marks (3)

Q 41 Write three characteristics of synthetic fibers.

Marks (3)

Q 42 Write three properties of plastics.

Marks (3)

Q 43 Write three disadvantages of synthetic fibers.

Marks (3)

Q 44 (a) Name a fibre that can be used as a cheap substitute of silk.

(b) Write four properties of nylon that makes it a popular fibre for making clothes?

(c) What is terylene? Marks (3)

Q 45 (a) When we say that plastics are non-biodegradable, what does it mean?

(b) Write two fibre-wise practices.

Marks (3)

Q 46 What are the advantages of using synthetic fiber?

Marks (5)

Q 47 State True or False

- (i) Nylon is a polymer.
- (ii) All polymers are natural materials.
- (iii) Polythene is thermosetting plastic.
- (iv) Starch, cellulose, proteins, silk and rubber are natural polymers.
- (v) Polyethylene terephthalate (PET) is used in making clothes.

Marks (5)

Q 48 Why the government is trying to ban plastic bags and promote paper bags though they are stronger than the paper bags?

Marks (5)

Q 49 i) The process of formation of polymers is called -----.

ii) Cotton is a natural polymer made of-----.

iii) Another name of ----- is artificial silk.

iv) ----- has feel of wool.

v) Bakelite is an example of-----.

Marks (5)

Q 50 Match the column A and B

COLUMN A

COLUMN B

- | | |
|---------------------|-----------------------|
| (i) Teflon | (a) Natural polymer |
| (ii) Terelene | (b) Artificial silk |
| (iii) Cellulose | (c) Acrylic |
| (iv) Rayon | (d) Non stick coating |
| (v) Synthetic fiber | (e) popular polyester |

Marks (5)

Q 51 State True or False

- (i) Plastic is also a polymer like the synthetic fibre
- (ii) Synthetic fabrics soak less water (sweat)
- (iii) Rayon is modified glucose.
- (iv) Polywool is mixture of polyester and wool.
- (v) All plastics are biodegradable.

Marks (5)

Q 52 What are the problems related to the use of plastics.

Marks (5)

Most Important Questions

Q 1 What is the basis for the classification of fibres?

Q 2 Define natural fibres?

Q 3 What do you understand by man-made fibres?

Q 4 Give two examples of natural fibres which are obtained from animals.

Q 5 Find odd one out-

- (a) Cotton
- (b) Wool
- (c) Nylon
- (d) Silk

Q 6 What is a polymer?

Q 7 Which is the first synthetic fibre?

Q 8 Name a synthetic fibre which resembles silk.

Q 9 Name a natural polymer.

Q 10 Which of the following fibre is prepared from wood-pulp?

- (a) Acrylic
- (b) Nylon
- (c) Rayon
- (d) Polyester

- Q 11 Which raw materials are used in the synthesis of man-made fibres?
- Q 12 Name the monomer of polyester.
- Q 13 Which raw materials are used in the synthesis of nylon?
- Q 14 Name the fibre having silky texture.
- Q 15 Name two common forms of polyester.
- Q 16 Which fibre is used in tooth-brushes and ropes for rock climbing?
- Q 17 Esters have-
- (a) pungent smell
 - (b) smell of rotten eggs
 - (c) bitter almonds smell
 - (d) fruity smell
- Q 18 Which fibre is used to imitate wool?
- Q 19 Which clothes are not suitable while working in the kitchen? Give reason.
- Q 20 How are clothes, fabrics and fibres related to each other?
- Q 21 Give reasons- Rayon is a synthetic fibre though it is obtained from natural source (wood-pulp).
- Q 22 Why synthetic fibres are preferred as clothing material?
- Q 23 Why polyester is suitable for making dress material?
- Q 24 Compare properties of synthetic fibres with natural fibres.
- Q 25 Why acrylic is used to make sweaters and blankets?
- Q 26 Nylon is used in the manufacture of parachutes. Why?
- Q 27 Write properties and uses of rayon.
- Q 28 Write disadvantages of synthetic fibres.
- Q 29 What is PET? Write uses of it?
- Q 30 What is PET? Write uses of it?
- Q 31 Fill in the blanks-
- (a)-----is called artificial silk.
 - (b) Synthetic fibres are synthesised from raw materials called-----.
 - (c) Socks, tents and bristles of brushes are made of ----.
 - (d) ----- is a natural polymer.
 - (e) Rayon is a -----fibre.

Q 32 Match the column 'A' and 'B'

Column 'A'	Column 'B'
i. Jute	A. First synthetic fibre
ii. Rayon	B. Natural fibre
iii. Nylon	C. Polymer
iv. Repetition of small units	D. Terylene
v. Polyester	E. Wood-pulp

Q 33 State True or False-

- (a) Synthetic fibres are non- biodegradable.
- (b) PET is used to make fabrics.
- (c) Rayon is light, strong, elastic and used to make socks.
- (d) Cellulose is made of small glucose units.
- (e) Synthetic fibres are more popular than natural fibres.

Q 34 What is a plastic?

Q 35 Name the different types of plastics.

Q 36 What is the arrangement of small units in various plastics?

Q 37 Define thermoplastics.

Q 38 What do you understand by thermosetting plastic?

Q 39 Find odd one out-

(a) Paper bag (b) Cotton cloth (c) Woollen cloth (d) Plastic bag

Q 40 Give reasons-

Handles of frying pans are made of plastic.

Q 41 Why plastic containers are convenient to store different food items?

Q 42 Why electrical wires have outer covering of plastic?

Q 43 Which plastic is used for making floor tiles?

Q 44 Why Bakelite is used in making electrical switches?

Q 45 Thermoplastics cannot be used to make-

- (a) Containers
- (b) Handles of utensils
- (c) Toys
- (d) Outer covering of electrical wires

Q 46 Name the plastic which is used for the uniforms of firemen?

Q 47 Why melamine is used for making kitchenware and fabrics which resist fire?

Q 48 Give two examples of thermoplastics.

Q 49 Name two thermosetting plastics.

Q 50 Write three properties of plastic.

Q 51 Which of the plastics- thermosetting or thermoplastic can be recycled?

Q 52 Which is used for non-stick coating on cookwares?

Q 53 What happens when plastic is burnt?

Q 54 Explain why, plastic bags should not be thrown on the road?

Q 55 What is '4R' principle?

Q 56 What are the problems related to the use of plastics?

Q 57 Fill in the blanks-

(a) Thermoplastic is a -----conductor of electricity.

(b) Plastic is a -----polymer.

(c) We should use -----bag or-----bag while going for shopping.

(d) -----is used for packaging of tablets.

(e) Due to---- in weight, plastics are used in cars, spacecrafts and aircrafts.

Q 58 State True or False-

(a) PVC is a thermoplastic.

(b) Plastic containers are not convenient for storage of food items.

(c)All plastics are bio-degradable.

(d)Bakelite is used for making electric plugs.

(e)Plastics are generally costlier than metals.

Q 59 Match the column A and B

Column A	Column B
1.Thermoplastics	(a) Handles of utensils, floor tiles
2.Thermosetting plastics	(b) Melamine
3.Biodegradable	(c) Teflon
4.Fire proof plastic	(d) Wood
5.Oil and water do not stick.	(e) Combs, containers

4. Materials: Metals and Non-Metals

Q 1 Give one example of each: metals and non-metals.

Mark (1)

Q 2 Name the metal, which is the best conductor of heat and electricity.

Mark (1)

Q 3 Name the property by virtue of which metals can be drawn into thin wires.

Mark (1)

Q 4 Name the gas produced, when metals reacts with acids.

Mark (1)

Q 5 What is the color of the copper sulphate solution?

Mark (1)

Q 6 State the nature of oxides of non-metals.

Mark (1)

Q 7 Which metal is stored in kerosene?

Mark (1)

Q 8 Name the property of the metal by which it can be drawn into thin sheets.

Mark (1)

Q 9 What happens when sulphur reacts with oxygen?

Mark (1)

Q 10 Which non-metal catches fire, if exposed to air?

Mark (1)

Q 11 Name the gas that burns with a POP sound.

Mark (1)

Q 12 What are displacement reactions?

Mark (1)

Q 13 Give one use of non-metal in our daily life.

Mark (1)

Q 14 What are metalloids?

Mark (1)

Q 15 Which metal is use to wrap food items?

Mark (1)

Q 16 What happens when sulphur di- oxide reacts with water? Give the chemical reaction involved.

Marks (2)

Q 17 Why lemon pickle cannot be stored in an aluminium foil?

Marks (2)

Q 18 Write two important properties of metals.

Marks (2)

Q 19 Why copper cannot displace zinc from zinc sulphate solution?

Marks (2)

Q 20 Why immersion rods for heating liquids are made up of metallic substances?

Marks (2)

Q 21 What happens when iron nails are dipped in water in a test tube for a week?

Marks (2)

Q 22 What happens when magnesium ribbon is burnt in air?

Marks (2)

Q 23 In a chemistry experiment, a student by mistake put some magnesium strips in blue coloured copper sulphate solution. What change will he observe in the colour of the solution? Write the reaction also.

Marks (2)

Q 24 In a chemistry experiment, a student by mistake put some magnesium strips in blue coloured copper sulphate solution. What change will he observe in the colour of the solution? Write the reaction also.

Marks (2)

Q 25 (a) You must have seen in the laboratory that sodium metal is always stored in kerosene oil. Why is it so?
(b) Name a non-metal that is very reactive and is stored in water.

Marks (2)

Q 26 What happens when iron reacts with oxygen and water? Give the chemical reaction involved.

Marks (3)

Q 27 What happens when copper vessel is exposed to moist air for a long time? Give the chemical reaction that takes place.

Marks (3)

Q 28 Why gold is preferred in making jewellery?

Marks (3)

Q 29 What happens when dilute sulphuric acid is poured on a zinc plate? Write the chemical reaction that takes place.

Marks (3)

Q 30 Why metals are used in making aeroplanes, bridges, satellites etc.?

Marks (3)

Q 31 What will happen when ash of magnesium is dissolved in water? Is the solution acidic or basic? What effect does litmus show in case of oxides of metals?

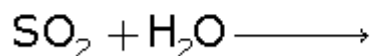
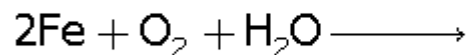
Marks (3)

Q 32 (a) You must have seen in the laboratory that sodium metal is always stored in kerosene oil. Why we do so?

(b) Name a non-metal that is very reactive and is stored in water.

Marks (3)

Q 33 Complete the following chemical reactions.



Marks (5)

Q 34 Explain the following terms. (i) Malleability (ii) Ductility (iii) Sonorous (iv) Lustrous (v) Metalloids.

Marks (5)

Q 35 (a) A student passes sulphur dioxide in water. Represent this by a chemical reaction.

(b) Rohan made an electric circuit using copper wire, battery, bulb and a coal piece. On testing, he observed that the bulb did not glow. What is the problem with the circuit?

(c) You must have observed green coating on copper vessels. What does that indicate? Write the chemical composition of this green coating.

Marks (5)

Q 36 (a) A student passes sulphur dioxide in water. Represent this by a chemical reaction.

(b) Rohan made an electric circuit using copper wire, battery, bulb and a coal piece. On testing, he observed that the bulb did not glow. What is the problem with the circuit?

(c) You must have observed green coating on copper vessels. What does that indicate? Write the chemical composition of this green coating.

Marks (5)

Most Important Questions

Q 1 What are materials?

Q 2 What is the basis for the classification of materials?

Q 3 Write two types of materials.

Q 4 Give two examples of metals.

Q 5 Give two examples of non-metals.

Q 6 Name the property by which metals can be drawn into thin wires.

Q 7 Define malleability.

Q 8 Which metal catches fire, if exposed to air?

Q 9 What are Displacement reactions?

Q 10 What happens when magnesium reacts with oxygen?

Q 11 Which metal is used to wrap food items?

Q 12 Why immersion rods, which are used for heating liquids are made up of metallic substances?

Q 13 Find odd one out-

- (a) Iron
- (b) Silver
- (c) Mercury
- (d) Copper

Q 14 Which gas evolves due to the reaction of a metal with dilute acid?

- (a) Oxygen
- (b) Hydrogen
- (c) Nitrogen
- (d) Carbon dioxide

Q 15 Write the reaction of aluminium with sodium hydroxide solution.

Q 16 What happens when iron reacts with oxygen and water? Give the chemical reaction involved.

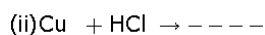
Q 17 Why is gold preferred in making jewellery?

Q 18 Fill in the blanks-

- (a) --- is the best conductor of heat and electricity.
- (b) The 'pop' sound indicates the presence of --- gas.
- (c) A --- reactive metal displaces a --- reactive metal from its salt solution.
- (d) Metal oxides are --- in nature.

Q 19 What happens when iron nails are dipped in water in a test tube for a week?

Q 20 Complete the following chemical reactions-



- Q 21 Define corrosion.
- Q 22 What happens when a copper vessel is exposed to moist air for long?
- Q 23 Which is the hardest non-metal ?
- Q 24 Name the property of non-metals by which they break into pieces by a hammer.
- Q 25 Which non-metal is lustrous?
- Q 26 Name the non metal which can conduct electricity.
- Q 27 What is the nature of non-metallic oxides?
- Q 28 Give examples of two non-metallic oxides.
- Q 29 Which non-metal catches fire, if exposed to air?
- Q 30 Write two important physical properties of non-metals.
- Q 31 Write three uses of metals.
- Q 32 Find odd one out-
(a) Sodium(b) Potassium(c) Magnesium(d) Phosphorous
- Q 33 Which of the following is a liquid non-metal?
(a) Chlorine(b) Hydrogen(c) Bromine(d) Sulphur
- Q 34 Which non-metal is essential for life?
- Q 35 Which non-metal is used as antiseptic?
- Q 36 What happens when a non-metal reacts with water?
- Q 37 Name a non-metal whose compounds are used as fertilisers?
- Q 38 Write three uses of non-metals.
- Q 39 Fill in the blanks-
(a) --- is stored in water.
(b) The purple coloured solution of---is applied on wounds.
(c) CO₂ turns ---litmus solution---.
(d) --- is used to preserve food materials.
- Q 40 Why metals are used in making aeroplanes and satellites etc.?
- Q 41 What is an element?
- Q 42 What are metalloids?
- Q 43 Compare the physical properties of metals and non-metals.

5. Coal and Petroleum

Q 1 Which organization in India, is associated with the conservation of petrol and diesel?

Mark (1)

Q 2 What are the natural resources?

Mark (1)

Q 3 How is carbon black prepared?

Mark (1)

Q 4 Write the products obtained by processing of coal.

Mark (1)

Q 5 What is the constitution of natural gas?

Mark (1)

Q 6 What is the full form of PCRA?

Mark (1)

Q 7 What are the inexhaustible natural resources?

Mark (1)

Q 8 What are the exhaustible natural resources?

Mark (1)

Q 9 What are the fossil fuels?

Mark (1)

Q 10 How dead plants are converted into coal?

Mark (1)

Q 11 Explain the term carbonisation?

Mark (1)

Q 12 What is bitumen?

Mark (1)

Q 13 How can we obtain the coal gas?

Mark (1)

Q 14 Define the term coal tar?

Mark (1)

Q 15 Explain the term petroleum refinery?

Mark (1)

Q 16 Give tips to save petrol/diesel while driving.

Mark (1)

Q 17 Write the constituents of Petroleum.

Marks (2)

Q 18 Give two examples of exhaustible and inexhaustible natural resources.

Marks (2)

Q 19 Explain the formation of petroleum.

Marks (2)

Q 20 Define refining of petroleum. Where it is carried out?

Marks (2)

Q 21 Write four uses of petrochemicals.

Marks (2)

Q 22 Write two advantages of using CNG as a fuel.

Marks (2)

Q 23 (i) What are petrochemicals?

(ii) Why petroleum is called black gold?

Marks (2)

Q 24 Name the places in India where reserves of natural gas are found.

Marks (2)

Q 25 Where do we find reserves of petroleum and natural gas – above water or below water? Why?

Marks (2)

Q 26 Write two advantages of using CNG as a fuel?

Marks (2)

Q 27 Write four uses of petrochemicals.

Marks (2)

Q 28 Define refining of petroleum. Where it is carried out?

Marks (2)

Q 29 (i) What are petrochemicals?

(ii) Why petroleum is called black gold?

Marks (2)

Q 30 Name the places in India where reserves of natural gas are found.

Marks (2)

Q 31 Where do we find reserves of petroleum and natural gas – above water or below water? Why?

Marks (2)

Q 32 Why petroleum is known as Black gold?

Marks (3)

Q 33 Coal is a fossil fuel. Explain.

Marks (3)

Q 34 What are the advantages of using CNG and LPG as fuels?

Marks (3)

Q 35 Give one use of each coke, coal tar and coal gas.

Marks (3)

Q 36 Write three uses of coal.

Marks (3)

Q 37 Distinguish between exhaustible and inexhaustible natural resources.

Marks (3)

Q 38 Why should we use the fossil fuels economically and wisely?

Marks (3)

Q 39 Can the fossil fuels be prepared in the laboratory? If not, Why?

Marks (3)

Q 40 Draw a neat and clean diagram of petroleum refinery.

Marks (3)

Q 41 How petroleum is mined from their deposits?

Marks (3)

Q 42 What are the various constituents of petroleum? Give their uses.

Marks (5)

Q 43 Write short note on natural gas.

Marks (5)

Q 44 (i)What is carbonisation?

(ii)Name three products obtained after the processing of coal. Also mention their uses.

Marks (5)

Q 45 What is carbonisation? Name three products obtained after the processing of coal. Also mention their uses. Marks (5)

- Q 1 What are the fossil fuels? Explain with examples.
- Q 2 Define the term fuel with examples.
- Q 3 Differentiate between exhaustible and inexhaustible sources of energy.
- Q 4 How the coal is formed under the earth?
- Q 5 Define the term carbonization.
- Q 6 What happens when coal is burnt in insufficient supply of oxygen ?
- Q 7 What is coke? Write its uses also.
- Q 8 What are the advantages of using CNG.
- Q 9 Explain the process of refining the petroleum in brief.
- Q 10 How petroleum is mined from their deposits?
- Q 11 What is coal tar? Write its important uses.
- Q 12 Why should we use the fossil fuels economically?
- Q 13 How can we save petrol and diesel while driving?
- Q 14 Can fossil fuels be prepared in the laboratory? If not, Why?

6. Combustion and Flame

Q 1 Name two fuels which are used for running automobiles.

Mark (1)

Q 2 Define combustion.

Mark (1)

Q 3 Write a difference between burning of a candle and the burning of coal.

Mark (1)

Q 4 What do you understand by combustible substances or fuels?

Mark (1)

Q 5 Is burning of magnesium combustion?

Mark (1)

Q 6 Give two examples of non-combustible substances.

Mark (1)

Q 7 What is essential for combustion?

Mark (1)

Q 8 What do you mean by ignition temperature?

Mark (1)

Q 9 Does a matchstick burn by itself?

Mark (1)

Q 10 What is the composition of the head of the matchstick?

Mark (1)

Q 11 Which type of pollution occurs on burning wood?

Mark (1)

Q 12 Name a liquid fuel which is used in homes.

Mark (1)

Q 13 Name the most common fire extinguisher.

Mark (1)

Q 14 Which poisonous gas is produced due to incomplete combustion of a fuel?

Mark (1)

Q 15 Name the substance used to extinguish fire involving electrical equipments. Mark (1)

Q 16 Why is food regarded as a fuel for our body?

Marks (2)

Q 17 Write the full forms of-

(a) CNG

(b) LPG

Marks (2)

Q 18 When a burning charcoal piece is covered with a glass jar, it stops burning. Why?

Marks (2)

Q 19 Which will catch fire first coal or kerosene?

Marks (2)

Q 20 What are inflammable substances?

Marks (2)

Q 21 What would you do when the clothes of a person catches fire?

Marks (2)

Q 22 Explain how water control fires?

Marks (2)

Q 23 How is CO₂ able to control fires?

Marks (2)

Q 24 What do you understand by Explosion?

Marks (2)

Q 25 Which zone of a flame does a goldsmith use for melting gold and silver and why?

Marks (2)

Q 26 How can water boil in a paper cup without burning it?

Marks (3)

Q 27 What are the three zones of a flame ? Draw a labelled diagram of a candle flame.

Marks (3)

Q 28 Why does the matchstick start burning on rubbing it on the side of the matchbox?

Marks (3)

Q 29 Give reasons-

(i) LPG is a better domestic fuel than wood.

(iii) Water is not used to control fires involving electrical equipment.

Marks (3)

Q 30 Paper by itself catches fire easily whereas a piece of paper wrapped around an aluminium pipe does not.

Marks (3)

Q 31 Define-

a. Spontaneous combustion.

b. Rapid combustion.

Marks (3)

Q 32 (i) What is calorific value? Write its unit.

(ii) In an experiment 4.5 kg of a fuel was completely burnt. The heat produced was measured to be 180,000 kJ. Calculate the calorific value of the fuel.

Marks (3)

Q 33 Why is it difficult to burn a heap of green leaves but dry leaves catch fire easily?

Marks (3)

Q 34 What do you understand by Global Warming? Give any two consequences of Global Warming.

Marks (3)

Q 35 What are the essential requirements for producing fire? On which principle, the fire extinguisher works?

Marks (5)

Q 36 What are the characteristics of an ideal fuel?

Marks (5)

Q 37 Why is CO₂ an excellent fire extinguisher? Draw a diagram of fire extinguisher.

Marks (5)

Q 38 What is acid rain. Write its harmful effects.

Marks (5)

Q 39 How will you show that for a substance to burn, it is essential to reach its ignition temperature?

Marks (5)

Q 1 What is combustion?

Q 2 What do you understand by combustible substances? Give examples.

Q 3 What are non- combustible substances?

Q 4 What are the requirements for combustion?

Q 5 Define ignition temperature.

Q 6 What are inflammable substances?

Q 7 Which gas is supporter of combustion?

(a) CO_2

(b) He

(c) O_2

(d) Ne

Q 8 How can fire be controlled?

Q 9 What would you do when the clothes of a person catch fire?

Q 10 Why is water not used to control fires involving electrical equipment?

Q 11 Explain how water is able to control fires?

Q 12 Find odd one out-

(a) Coal

(b) Glass

(c) Wood

(d) Paper

Q 13 Which gas is used to extinguish fire?

(a) CO_2

(b) He

(c) O_2

(d) Ne

Q 14 Burning of magnesium is considered as combustion. Why?

Q 15 Which substance is used to extinguish fire involving electrical equipments?

Q 16 Which will get fire first coal or LPG?

Q 17 Fill in the blanks-

- (a) Fuel must be heated to its----- before it starts burning.
- (b) -----cannot be used to control fires involving oils.
- (c) Inflammable substances have very ---ignition temperature.
- (d) A liquid fuel, used in homes is---

Q 18 Match the column 'I' with Column 'II'

i. Oxygen	A. Fuel
ii. Carbon dioxide	B. Combustion
iii. Food	C. Diesel
iv. Inflammable	D. Fire extinguisher

- (a) i-B, ii-A, iii-C, iv-D
- (b) i-B, ii-A, iii-D, iv-C
- (c) i-B, ii-D, iii-A, iv-C
- (d) i-A, ii-B, iii-C, iv-D

Q 19 Write the different types of combustion.

Q 20 What is spontaneous combustion?

Q 21 What do you understand by explosion?

Q 22 What is calorific value?

Q 23 The combustion of coal dust in coal mines is-

- (a) Rapid combustion
- (b) Explosion
- (c) Spontaneous combustion
- (d) None of these

Q 24 What is a flame?

Q 25 Write the zones of a flame.

Q 26 Draw a labelled diagram of structure of a flame.

Q 27 Find odd one out-

- (a) Magnesium
- (b) Camphor
- (c) Candle
- (d) Charcoal

Q 28 Define rapid combustion.

Q 29 What are the characteristics of an ideal fuel?

Q 30 The least hot zone of the flame is-

- (a) Middle zone
- (b) Innermost zone
- (c) Outer zone
- (d) Luminous zone

Q 31 Explain why, LPG is a better domestic fuel than wood?

Q 32 Give the names of harmful products of combustion.

Q 33 What is acid rain?

Q 34 What do you understand by Global Warming?

Q 35 Fill in the blanks-

- (a) Incomplete combustion of a fuel gives poisonous-----gas.
- (b) The unit of calorific value is-----.
- (c) Burning of wood and coal causes----- of air.
- (d) -----is a cleaner fuel.

Q 36 Match the column 'I' with Column 'II'

Column 'I'	Column 'II'
i. Outermost zone	A. Buildings, crops
ii. Acid rain	B. Least hot
iii. Innermost zone	C. Melting of glaciers
iv. Global warming	D. Hottest zone

- (a) i-B, ii-A, iii-C, iv-D
- (b) i-B, ii-A, iii-D, iv-C
- (c) i-D, ii-A, iii-B, iv-C
- (d) i-A, ii-B, iii-C, iv-D

7. Conservation of Plants and Animals

Q 1 What is deforestation?

Mark (1)

Q 2 What do you understand by biodiversity?

Mark (1)

Q 3 What is the difference between flora and fauna?

Mark (1)

Q 4 What is species?

Mark (1)

Q 5 Name the first Reserve Forest of India.

Mark (1)

Q 6 What was the objective of Project Tiger?

Mark (1)

Q 7 Name the book that keeps a record of the endangered animals and plants.

Mark (1)

Q 8 What are migratory birds?

Mark (1)

Q 9 What is the difference between deforestation and reforestation?

Mark (1)

Q 10 Give one plant and one animal species which are the endemic species of Panchmarhi Biosphere Reserve.

Mark (1)

Q 11 Name two natural causes of deforestation.

Mark (1)

Q 12 What is a biosphere?

Mark (1)

Q 13 Who lays down rules and policies to protect and conserve forests?

Mark (1)

Q 14 What activities are strictly prohibited in a wildlife sanctuary?

Mark (1)

Q 15 What is an ecosystem?

Mark (1)

Q 16 What will happen to a deforested area if it is left undisturbed?

Mark (1)

Q 17 What is desertification?

Mark (1)

Q 18 Name any four biosphere reserves present in India?

Marks (2)

Q 19 What are endemic species? Give one example.

Marks (2)

Q 20 What is the difference between a zoo and a wildlife sanctuary?

Marks (2)

Q 21 What are endangered species? Give one example.

Marks (2)

Q 22 Why do birds fly to far away areas?

Marks (2)

Q 23 Name the national park and sanctuaries that constitute Panchmarhi Biosphere Reserve.

Marks (2)

Q 24 Give two reasons which endanger the existence of endemic species.

Marks (2)

Q 25 What are the objectives of Forest Act?

Marks (2)

Q 26 How floods are caused due to deforestation?

Marks (2)

Q 27 Why do we need the forests? Give three reasons.

Marks (3)

Q 28 Why conservation of forests and wildlife sanctuary is necessary?

Marks (3)

Q 29 What are the various purposes for which trees are cut?

Marks (3)

Q 30 Name the protected areas meant for protection of flora and fauna.

Marks (3)

Q 31 Why do we need to save paper? Give three reasons.

Marks (3)

Q 32 Suggest three steps that can be taken to conserve forests?

Marks (3)

Q 33 Deforestation is a harmful activity. Give reasons for the given statement.

Marks (5)

Q 34 How does deforestation cause droughts?

Marks (5)

Q 35 How does deforestation cause desertification?

Marks (5)

Most Important Questions

Q 1 What is deforestation?

Q 2 What are the various purposes for which trees are cut?

Q 3 Deforestation is a harmful activity. Give reasons for the given statement.

Q 4 What do you understand by biodiversity?

Q 5 Name the protected areas for protection of flora and fauna.

Q 6 What is the difference between flora and fauna?

Q 7 How does deforestation cause droughts?

Q 8 What are endemic species? Give one example.

Q 9 What is the difference between deforestation and reforestation?

Q 10 Give one plant and one animal species, which are the endemic species of Panchmarhi Biosphere Reserve.

Q 11 Name some natural causes of deforestation.

Q 12 How does deforestation cause desertification?

Q 13 What is a biosphere?

Q 14 Who lays down rules and policies to protect and conserve forests?

Q 15 Name the national park and sanctuaries that constitute Panchmarhi Biosphere Reserve.

Q 16 What do you understand by the term 'Recycling of Paper'?

Q 17 How can we save the trees by saving the paper?

- Q 18 What is biosphere reserve?
- Q 19 Mention some consequences of deforestation.
- Q 20 Give two reasons which endanger the existence of endemic species.
- Q 21 What will happen to a deforested area if it is left undisturbed?
- Q 22 Suggest three steps that can be taken to conserve forests.
- Q 23 What are the objectives of Forest Act?
- Q 24 How floods are caused due to deforestation?
- Q 25 What is desertification?
- Q 26 What is the difference between a zoo and a wildlife sanctuary?
- Q 27 Name the first Reserve Forest of India.
- Q 28 What was the objective of Project Tiger?
- Q 29 What are endangered species? Give one example.
- Q 30 Name the book that keeps a record of the endangered animals and plants.
- Q 31 What are migratory birds?
- Q 32 Why do birds fly to far away areas?
- Q 33 What activities are strictly prohibited in a wildlife sanctuary?
- Q 34 What is an ecosystem?
- Q 35 What do you understand by wildlife sanctuary?
- Q 36 Name some wildlife sanctuaries of India.
- Q 37 What do you understand by National parks?
- Q 38 Name some tiger reserves of India.
- Q 39 How can we say Satpura Tiger Reserve is unique?
- Q 40 Name some animals which are protected and preserved in our wildlife sanctuaries.

8. Cell Structure and Functions

Q 1 Mention the layer outside the plasma membrane of a plant cell.

Mark (1)

Q 2 Name the outermost layer of an animal cell.

Mark (1)

Q 3 Name the cells having branching structure.

Mark (1)

Q 4 Why cells could not be observed before seventeenth century?

Mark (1)

Q 5 What is the basic structural and functional unit of all living organisms?

Mark (1)

Q 6 Which organism has the smallest cell?

Mark (1)

Q 7 Which is the largest cell visible by unaided eye?

Mark (1)

Q 8 Name the four elements, which form major part of protoplasm.

Mark (1)

Q 9 Give two examples of unicellular organisms.

Mark (1)

Q 10 Name the jelly like substance present between the nucleus and the cell membrane.

Mark (1)

Q 11 Name the living substance of the cell.

Mark (1)

Q 12 Which organelle is called control centre of the activities of the cell?

Mark (1)

Q 13 Give two examples of prokaryotes.

Mark (1)

Q 14 Name the largest organelle present in a cell.

Mark (1)

Q 15 Name the green plastids present in cell.

Mark (1)

Q 16 Write a brief note on mitochondria.

Marks (2)

Q 17 Why do we stain the small components of section, before seeing under the microscope? Name a stain.

Marks (2)

Q 18 Name any four cell organelles found in the cell cytoplasm?

Marks (2)

Q 19 Why is the cell called basic unit of living organism?

Marks (2)

Q 20 What is the function of cell membrane?

Marks (2)

Q 21 What is the function of nerve cell?

Marks (2)

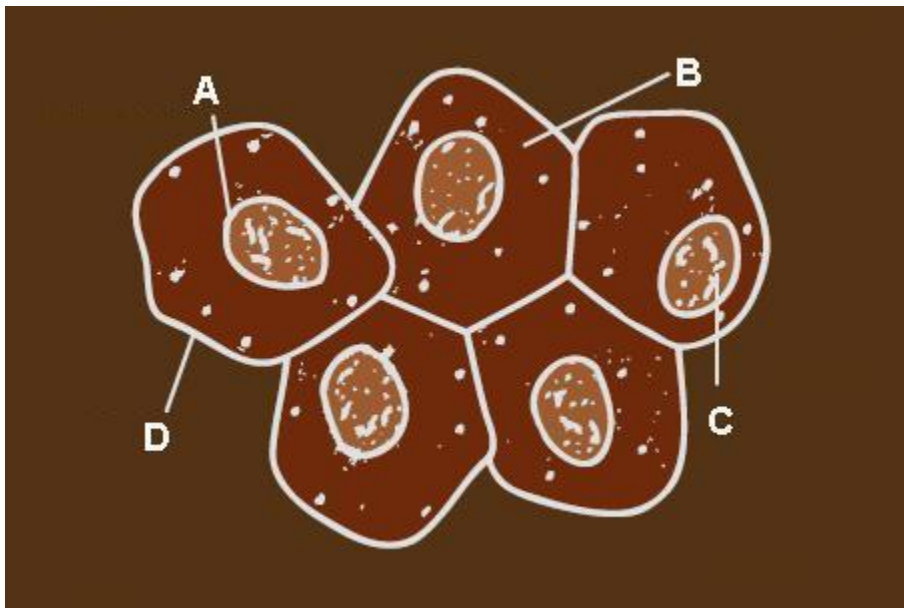
Q 22 What are the basic components of cell?

Marks (2)

Q 23 Why plant cell have cell wall?

Marks (2)

Q 24 Label the parts A, B, C and D in the below given image of human cheek cells:



Marks (2)

Q 25 Describe the variations in shape and size of cells.

Marks (3)

Q 26 Explain why chloroplasts are found only in plant cells?

Marks (3)

Q 27 Write the functions of the following

a) Mitochondria b) Chromosomes c) Plastids

Marks (3)

Q 28 Write three differences between prokaryotic and eukaryotic cells.

Marks (3)

Q 29 Where are chromosomes found in a cell? State their function.

Marks (3)

Q 30 Draw the diagram of plant and animal cell.

Marks (3)

Q 31 Make a sketch of the human nerve cell. What function do nerve cells perform?

Marks (5)

Q 32 Write short notes on the following:

- a) Cytoplasm
- b) Nucleus

Marks (5)

Q 33 Differentiate between plant and animal cell.

Marks (5)

Most Important Questions

Q 1 Which part of the cell does control the entry and exit of substances in a cell?

Q 2 Name the outermost layer of the plant cells.

Q 3 What are cell organelles?

Q 4 Name the components present inside the nucleus of a cell.

Q 5 Give two examples of unicellular organisms.

Q 6 Name the part of the protoplasm that lies between nucleus and plasma membrane.

Q 7 Name the cell organelles that are absent in an animal cell.

Q 8 What purpose do vacuoles serve in an amoeba?

Q 9 How does nucleus help in transmission of characters from parents to children?

Q 10 Why are cells called functional units of an organism?

Q 11 Fill in the blanks:

Plastids containing _____ pigment are called chloroplasts.

Human body has _____ of cells. □ Amoeba moves with the help of _____. Living component of the cell is called _____.

Q 12 Who discovered the cell?

Q 13 Name the structure in which the cells were observed for the first time.

Q 14 Which instrument does help to see cells?

Q 15 Why cells are called structural units of all the living organisms?

Q 16 Give two examples of unicellular organisms.

Q 17 Which are the smallest sized cells?

Q 18 Classify the following as unicellular or multicellular organisms. (a) Ant (b) Bacteria (c) Plant (d) Mycolplasma

Q 19 Name a cell that can be viewed with naked eyes.

Q 20 Why are cells stained before viewing them under microscope?

Q 21 Name the human cells that can change their shape.

Q 22 Are the cells of an elephant larger than the cells of an ant?

Q 23 Why do cells have different shapes? Give an example to support your answer.

9. Reproduction in Animals

Q 1 What are the types of reproduction?

Mark (1)

Q 2 Why reproduction is an essential process?

Mark (1)

Q 3 What are male reproductive parts?

Mark (1)

Q 4 Name the reproductive parts of females.

Mark (1)

Q 5 What are the different parts of a sperm?

Mark (1)

Q 6 Name the organism which produces the largest eggs.

Mark (1)

Q 7 Define foetus.

Mark (1)

Q 8 What is metamorphosis?

Mark (1)

Q 9 Define sexual reproduction.

Mark (1)

Q 10 What is reproduction?

Mark (1)

Q 11 (a) Define fertilisation

(b) Expand IVF

Mark (1)

Q 12 Name the organs that produce sperms and ova in males and females, respectively.

Mark (1)

Q 13 Why does a hen sit on its eggs?

Mark (1)

Q 14 How much time is needed for development of a chick from embryo?

Mark (1)

Q 15 What do you mean by fertilisation? What is the result of fertilisation?

Mark (1)

Q 16 What are viviparous animals? Give examples.

Mark (1)

Q 17 What are the different stages in the life cycle of a frog?

Mark (1)

Q 18 What are gametes?

Marks (2)

Q 19 Name the various methods of asexual reproduction with an example of each.

Marks (2)

Q 20 (a) Define sexual reproduction.

(b) Why an individual has some characteristics of father and some of mother?

Marks (2)

Q 21 What are gametes? Differentiate between sperms and ova.

Marks (2)

Q 22 Differentiate between internal and external fertilisation.

Marks (2)

Q 23 Write down the type of fertilisation in (a) Frogs (b) Hens (c) Humans (d) Fish.

Marks (2)

Q 24 What is the difference between the eggs of a hen and of a frog?

Marks (2)

Q 25 Why frogs and fish produce a large number of gametes?

Marks (2)

Q 26 What is an embryo? Where does the development of a human embryo take place?

Marks (2)

Q 27 Describe the female reproductive organs in brief?

Marks (3)

Q 28 Describe the male reproductive organs in brief?

Marks (3)

Q 29 Discuss the steps that occur during sexual reproduction.

Marks (3)

Q 30 Differentiate between oviparous and viviparous animals. Give one example of each.

Marks (3)

Q 31 What are the differences between development of young ones in frogs and in humans?

Marks (3)

Q 32 Differentiate between asexual and sexual reproduction.

Marks (3)

Q 33 What is binary fission? Name the organism in which the binary fission is a method of reproduction.

Marks (5)

Q 34 Answer the following in one word:

- (a) Process of production of exact copies of an organism
- (b) First cloned mammal
- (c) First person to perform cloning of an animal successfully
- (d) Babies born through *in vitro* fertilisation
- (e) Type of reproduction in amoeba

Marks (5)

Q 35 Explain the process of budding. Name two organisms in which budding takes place.

Marks (5)

Most Important Questions

Q 1 Why an individual has some characteristics of father and some of mother?

Q 2 What are gametes? Differentiate between sperms and ova.

Q 3 Differentiate between internal and external fertilization.

Q 4 Differentiate between asexual and sexual reproduction.

Q 5 What are male reproductive parts?

Q 6 Why is reproduction an essential process?

Q 7 Name the reproductive parts of females.

Q 8 What are the different parts of a sperm?

Q 9 What are the basic features of reproduction?

Q 10 Define sexual reproduction.

Q 11 What is reproduction? What are their types?

Q 12 Name the organs that produce sperms and ova in males and females, respectively.

Q 13 What do you understand by fertilization? What is the result of a fertilization?

- Q 14 What do you understand by the term IVF?
- Q 15 What do you know about test-tube babies?
- Q 16 Name the various methods of asexual reproduction with an example of each.
- Q 17 What is an embryo? Where does the development of a human embryo take place?
- Q 18 Differentiate between oviparous and viviparous animals. Give one example of each.
- Q 19 What are the differences between development of young ones in frogs and in humans?
- Q 20 What is binary fission? Name the organism in which the binary fission is a method of reproduction.
- Q 21 Define foetus.
- Q 22 Why fission in amoeba is called binary fission?
- Q 23 Why does a hen sit on its eggs?
- Q 24 What are viviparous animals? Give examples.
- Q 25 What are the different stages in the life cycle of a frog?
- Q 26 Define the two type of fertilization.
- Q 27 Define asexual reproduction.
- Q 28 How are clones formed?
- Q 29 What is metamorphosis?
- Q 30 How does development of embryo take place?

10. Reaching the Age of Adolescence

Q 1 Why should teenagers take a bath at least once everyday?

Mark (1)

Q 2 What are chromosomes?

Mark (1)

Q 3 What is the period of adolescence?

Mark (1)

Q 4 What do you understand by the term adolescence?

Mark (1)

Q 5 When does the puberty end?

Mark (1)

Q 6 What causes increase in height of the person during puberty?

Mark (1)

Q 7 Why is it necessary to eat right kind of food during the growing years?

Mark (1)

Q 8 What is the other name for voice box in males?

Mark (1)

Q 9 Why does the voice of boys become hoarse during the age of adolescence?

Mark (1)

Q 10 How many pairs of chromosomes are there in the cells of human beings?

Mark (1)

Q 11 What determines the sex of an unborn baby?

Mark (1)

Q 12 Why is iron necessary for the body?

Mark (1)

Q 13 Name the male and female hormones that are secreted at the onset of puberty

Mark (1)

Q 14 What is the function of mammary glands?

Mark (1)

Q 15 Name the gland whose secretion control the secretion of sex hormones.

Mark (1)

Q 16 Name the hormone that causes metamorphosis in frogs.

Mark (1)

Q 17 What will be the sex of the individual with sex chromosomes as XY?

Mark (1)

Q 18 What is the period of reproductive phase in females?

Mark (1)

Q 19 What are the differences between menarche and menopause?

Marks (2)

Q 20 What is menstruation?

Marks (2)

Q 21 Why endocrine glands are called ductless glands? Give two examples.

Marks (2)

Q 22 A girl is 13 years old and 135 cm tall. At the end of growth period how much tall will she be?

Marks (2)

Q 23 What is the difference between the voice of a girl and a boy? Why this happens?

Marks (2)

Q 24 What is the importance of adrenal glands in humans?

Marks (2)

Q 25 Write the causes of:

(a)Diabetes

(B)Goiter

Marks (2)

Q 26 What mental changes occur during puberty?

Marks (2)

Q 27 Why a girl should not become pregnant during teenage?

Marks (2)

Q 28 Why young people get acne and pimples during puberty?

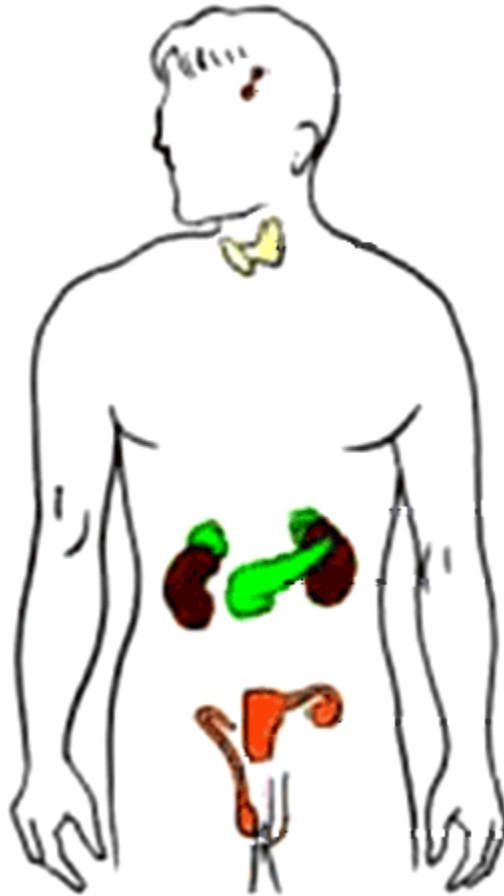
Marks (2)

Q 29 How do hormones act to bring about onset of puberty?

Marks (3)

Q 30 List three secondary sexual characters of boys and girls? Marks (3)

Q 31 Label the 3 glands involved in the reproductive function shown in the picture.



Marks (3)

Q 32 What health measures should be taken to maintain good reproductive health?

Marks (3)

Q 33 Explain the process of menstruation.

Marks (3)

Q 34 What are the sources of: (a) Iron (b) Proteins (c) Carbohydrates?

Marks (3)

Q 35 Write any five hormones along with their roles.

Marks (5)

Q 36 What is AIDS? Write three ways by which it is transmitted?

Marks (5)

Q 37 What are secondary sexual characters? Name two secondary sexual characters of each, girls and boys.

Marks (5)

- Q 1 What do you mean by adolescence?
- Q 2 Why are adolescents also called as teenagers?
- Q 3 What is the onset and the end of puberty?
- Q 4 How does the increase in height take place?
- Q 5 What could be the facts about the growth in individual cases?
- Q 6 Why do many adolescents get acne and pimples during puberty?
- Q 7 How do the reproductive organs develop during puberty?
- Q 8 What is the status of adolescents in terms of mental, intellectual and emotional maturity?
- Q 9 What is the strategy of hormone action for the onset of puberty?
- Q 10 What changes do take place in the girls on attaining the puberty?
- Q 11 What do you understand by the reproductive phase of females? How will you relate this with menstruation?
- Q 12 Write the meaning of menarche and menopause.
- Q 13 How is the sex of human baby determined and who is responsible for this father or mother?
- Q 14 What will happen if pancreas does not produce hormone insulin in sufficient quantity and what is the function of adrenal gland?
- Q 15 Write few lines on metamorphosis.
- Q 16 Why should adolescents be alert about their food?
- Q 17 Why is hygiene more important in case of adolescents than others?
- Q 18 Why should one say no to drugs?
- Q 19 What do you know about AIDS?
- Q 20 How do secondary sexual characters differentiate between a girl and a boy during puberty?

11. Force and Pressure

Q 1 What happen when two force acts in opposite direction on an object?

Mark (1)

Q 2 What is a force?

Mark (1)

Q 3 What is a spring force?

Mark (1)

Q 4 Define the push force with its effect.

Mark (1)

Q 5 Define pull force and write its effects.

Mark (1)

Q 6 Define contact force.

Mark (1)

Q 7 Define muscular force.

Mark (1)

Q 8 Define frictional force.

Mark (1)

Q 9 Explain the term 'non-contact forces'.

Mark (1)

Q 10 What is an electrostatic force?

Mark (1)

Q 11 What is gravitational force?

Mark (1)

Q 12 What is pressure?

Mark (1)

Q 13 Define atmospheric pressure.

Mark (1)

Q 14 Define the term 'gravity'.

Mark (1)

Q 15 What happens when we press a rubber ball placed on a table? Mark (1)

Q 16 How does the force of friction arises?

Mark (1)

Q 17 Ram drags his little sister towards himself away from a mad dog. What did Ram apply - pull or push?

Mark (1)

Q 18 Which device is used to measure the weight of a body?

Mark (1)

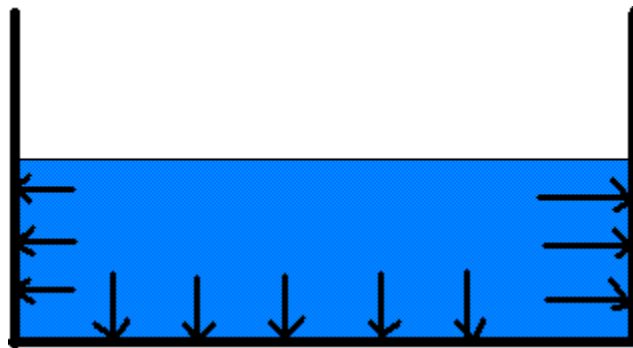
Q 19 Define the weight of a body. Also, write its S.I. unit.

Mark (1)

Q 20 What are the five effects of force?

Marks (2)

Q 21 Do liquids and gases exert pressure on the walls of the container , they are kept in ?Does the figure below exhibits, an example of liquid pressure?



Marks (2)

Q 22 How does a person move forward during swimming?

Marks (2)

Q 23 What do you mean by the force of friction? How can it be minimised?

Marks (3)

Q 24 Why is the moon's force of gravity less than that of the earth?

Marks (3)

Q 25 Mention three types of forces which can act from a distance.

Marks (3)

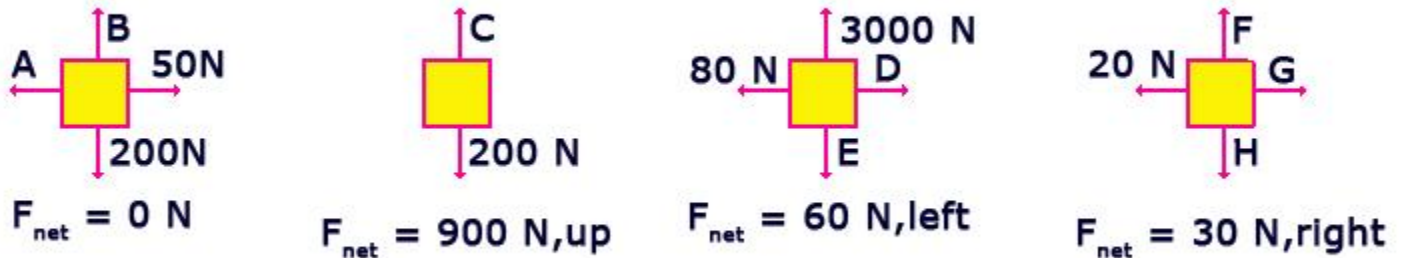
Q 26 Calculate the weight of 1 Kg mass.

Marks (3)

Q 27 Mention three disadvantages of friction between the parts of a machine. How does (a) oiling and (b) usage of ball bearings help to reduce friction?

Marks (5)

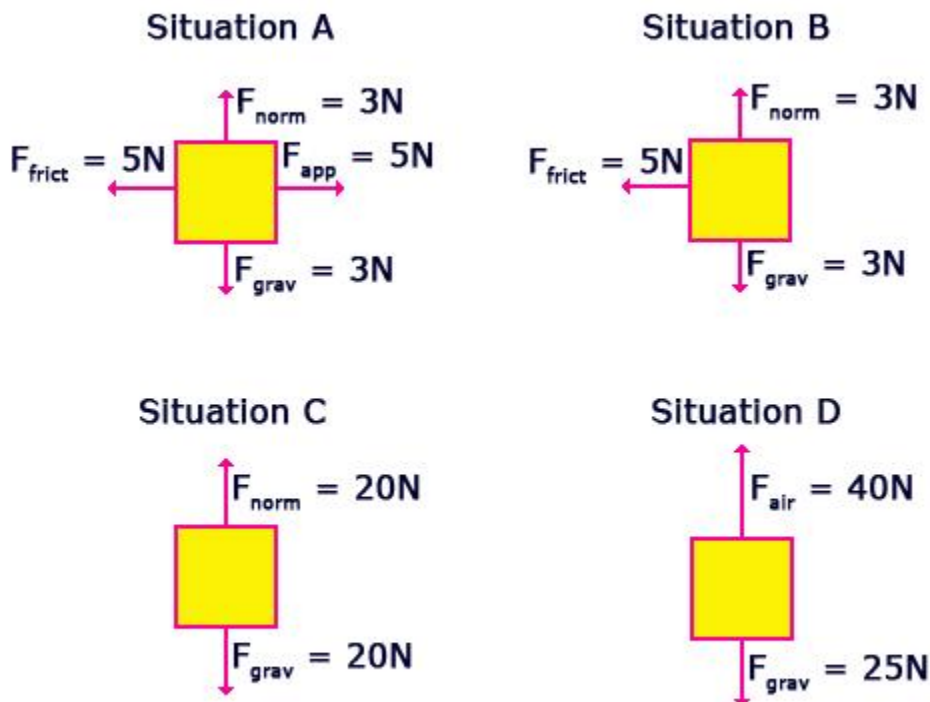
Q 28 Free-body diagrams for four situations are shown below. The net force is known for each situation. However, the magnitudes of few of the individual forces are not known.



Analyze each situation individually and determine the magnitude of the unknown forces.

Marks (5)

Q 29 Define the term 'net force'. Free-body diagrams for four situations are shown below.



For each situation, determine the net force acting upon the object.

Marks (5)

Q 1 What do you understand by force? What is its unit?

Q 2 Give two examples of push and pull each from your daily life.

Q 3 Can you guess the type of force in the following:

- (1) Holding a bucket.
- (2) Squeezing the orange to extract juice.
- (3) A blacksmith hammers an iron piece.

Q 4 How does a force effects an object?

Q 5 If a force of 2N is applied on a box towards north and a force of 3N in south. In which direction the box will move?

Q 6 If a force of 2N and 3N are applied on an object in the same direction, what will be the net force on the object?

Q 7 A cricketer throws a ball in upward direction. How will it affect the state of the ball?

Q 8 Give an example of force applied for each, in which

- (1) Only direction of object changes
- (2) Only speed of object changes
- (3) Both speed and direction changes.

Q 9 When you push the wall with the maximum force you can apply, it does not move. Why?

Q 10 What happens in tug of war? Explain.

Q 11 Define the state of rest.

Q 12 A ball is moving towards east. In which direction one should apply the force to increase its speed?

Q 13 How the force makes effect on the state of an object?

Q 14 Every thing exert force on the other. It means that we also exert force on each other. Is this true? If yes, then why we does not feel this force?

Q 15 When my servant bring water in a pitcher, she place a thick piece of cloth on her head before placing pitcher. Why?

Q 16 What are the two different type of forces?

Q 17 Give two examples of each, contact and non-contact force.

Q 18 What are the different types of contact forces?

Q 19 What are different types of non-contact force?

Q 20 How could you say that liquid and gases also exert pressure on the wall of their container?

Q 21 Give two examples for each, to prove that gravitational force, electrostatic force and magnetic force exist and are non-contact force.

Q 22 Give two examples of friction and explain how it reduces the speed of a moving object.

Q 23 Have you been to a place where you feel atmospheric pressure?

Q 24 An apple hanging on a tree moves by itself, when it gets detached from the tree. Why?

Q 25 A single object cannot exert any force. Does this mean that if somebody is standing alone on earth, he does not feel any force?

Q 26 Nails automatically come towards the magnet. How does it happen?

Q 27 If I make a pinhole in a balloon, the air of the balloon blows out. How is it possible that all the air blows through a pin hole?

Q 28 How can a small rubber sucker support a big teddy bear?

Q 29 There is no atmosphere around many planets, then why is there an atmosphere around earth?

Q 30 When I was holding a bucket filled with water, I felt that I was exerting force on it. But there was no change in the position of the bucket. Is it possible?

12. Friction

Q 1 When does a body start moving?

Mark (1)

Q 2 What is the cause of friction?

Mark (1)

Q 3 What is rolling friction?

Mark (1)

Q 4 What is sliding friction?

Mark (1)

Q 5 What do you mean by the term drag?

Mark (1)

Q 6 What is the direction of frictional force?

Mark (1)

Q 7

Give one difference between frictional force and gravitational force.

Mark (1)

Q 8 What is force of friction?

Mark (1)

Q 9 Frictional force is used to stop a moving bicycle. How?

Mark (1)

Q 10 State the factors on which friction depends?

Marks (2)

Q 11 Why does a ball rolling along the ground stop after some time?

Marks (2)

Q 12 Why kabaddi players rub their hands with soil while playing?

Marks (2)

Q 13 Give reasons for the following:

(a) Sparks are produced when a pair of scissors is sharpened against a grinding wheel.

(b) A piece of chalk wears out as it is used on a black board.

Marks (2)

Q 14 Wet surfaces are more slippery. Give reason.

Marks (2)

Q 15 How is the force of friction on a body in a fluid minimised?

Marks (2)

Q 16 Explain, why a hovercraft travels much faster than a streamer pushing through water?

Marks (2)

Q 17 What do you mean by the force of friction? How can it be minimised?

Marks (3)

Q 18 State the factors on which drag depends.

Marks (3)

Q 19 Give reasons

- (a) Powder is applied to a carom board.
- (b) A man walking on a street slips on a banana skin.
- (c) Oil is applied to the moving part of a machine.

Marks (3)

Q 20 Friction produces heat. Give one advantage and one disadvantage of this property.

Marks (3)

Q 21 Mention three ways in which friction between two surfaces can be minimised.

Marks (3)

Q 22 Mention three examples by which friction between two surfaces can be increased.

Marks (3)

Q 23 State and explain different types of friction.

Marks (3)

Q 24 Define

- (a) Fluid friction.
- (b) Streamlining.

Marks (3)

Q 25 What are the advantages of frictional force in our daily life?

Marks (5)

Q 26 Define force of friction . How is the force of friction disadvantageous ?

Marks (5)

Q 27 Mention three disadvantages of friction between the parts of a machine. How does (a) oiling and (b) using ball bearings help reduce friction?

Marks (5)

Q 1 Define friction.

Q 2 Why a cycle slows down when we apply brakes?

Q 3 What is the cause of friction?

Q 4 Define static and sliding friction.

Q 5 Why it is easier to move a box, which is already in motion than to get it in motion?

Q 6 Friction is required for walking. Explain.

Q 7 You spill some soapy water on the floor. Would it make it easier or more difficult for you to walk on the floor? Explain.

Q 8 Fill in the blanks with proper words.

(a) Friction opposes the----- between the surfaces in contact with each other.

(b) Friction occurs due to the----- between the two surfaces.

(c) Sliding friction is ----- than the static friction.

Q 9 What is a rolling friction?

Q 10 State rolling friction is smaller or greater than sliding friction.

Q 11 Explain why sportsmen use shoes with spikes.

Q 12 Explain why it is hard to drag a mat when a person is sitting on it than no one is sitting on it?

Q 13 Define lubricant. Give some examples.

Q 14 Can friction be reduced to zero by polishing or excessive use of lubricants?

Q 15 Explain fluid friction.

Q 16 State the factors on which fluid friction depends.

Q 17 Why we sprinkle fine powder on carom board?

Q 18 Why kabaddi players rub their hands with soil?

Q 19 Explain why objects moving in fluids must have special shapes.

Q 20 A brick is attached to a spring balance as shown in the figure given below:



You pull the brick (a) without wrapping polythene on it and (b) by wrapping polythene on it. Discuss the reading in the two cases.

13.Sound

Q 1 What is sound?

Mark (1)

Q 2 How is sound produced?

Mark (1)

Q 3 What is the necessary condition for sound propagation?

Mark (1)

Q 4 Define amplitude of vibration.

Mark (1)

Q 5 What is the use of reflection of sound?

Mark (1)

Q 6 On what factor, does the loudness of sound depend?

Mark (1)

Q 7 In which medium among wood and water, will the sound travel faster?

Mark (1)

Q 8 Define frequency.

Mark (1)

Q 9 Define the term pitch.

Mark (1)

Q 10 Define the term echo.

Mark (1)

Q 11 What is the audible range of frequencies for human ear?

Mark (1)

Q 12 What is the full form of SONAR?

Mark (1)

Q 13 Name the section of throat in which human voice is produced.

Mark (1)

Q 14 What is an ultrasound?

Mark (1)

Q 15 Write one difference between musical sound and noise.

Mark (1)

Q 16 Name the two animals that use echolocation to guide themselves.

Mark (1)

Q 17 Why humans cannot hear the sound of the whistle used for dog training?

Marks (2)

Q 18 Define the term 'quality of sound'?

Marks (2)

Q 19 Why does the walls, floor and ceilings are covered by sound absorbing materials in cinema hall and auditorium?

Marks (2)

Q 20 Write the following voices having different frequencies in the increasing order of their frequencies : (i) voice of a child, (ii) voice of an adult male, (iii) voice of an adult woman.

Marks (2)

Q 21 A pendulum produces 20 oscillations in 5 seconds. Calculate its time period?

Marks (2)

Q 22 Give reason:

(i) During a thunderstorm, we see the lightning first and then hear the thunder.

(ii) We do not hear the supersonic jets when they approach us, but hear a sudden boom after it has passed away.

Marks (3)

Q 23 Explain how sound is produced by each of the following types of musical instruments.

(i) Wind instruments.

(ii) Stringed instruments.

(iii) Percussion instruments.

Marks (3)

Q 24 How would you describe the sound produced when

1. the large number of vibrations are produced per second.

2. the amplitude is small.

3. the vibrations are produced at irregular intervals.

Marks (3)

Q 25 Sound produced by a mosquito is quite different from the roar of a lion. Explain.

Marks (3)

Q 26 Write differences between musical sound and noise.

Marks (3)

Q 27 How is the human voice produced? Explain.

Marks (5)

Q 28 What do you understand by the term noise pollution? Write some harmful effects of noise pollution.

Marks (5)

Q 29 How do we hear sound? Explain with the diagram.

Marks (5)

Q 30 What do you understand by the term noise pollution? Suggest some ways of minimising noise pollution.

Marks (5)

Most Important Questions

Q 1 How sound is produced?

Q 2 Choose the correct answer:

Sound can travel through

- (a) Glasses only
- (b) Solids only
- (c) Liquids only
- (d) Solids, liquids and gases

Q 3 Explain a jaltarang.

Q 4 Draw the diagram of larynx and explain its function.

Q 5 Mark the following statements as true or false.

- (a) Sound cannot travel in vacuum.
- (b) Sound can travel in the liquid.
- (c) The thin membrane attached at the end of the ear is called eardrum.
- (d) Unwanted or unpleasant sound is called music.

Q 6 A pendulum oscillates 10 times in 5 seconds. Find the time period and the frequency of the oscillations.

Q 7 Define amplitude and frequency of the wave.

Q 8 What is the range of audible frequencies for a human?

Q 9 Define pitch. State which has a low pitch voice: A woman or a man, a lion or a bird.

Q 10 Explain loudness of sound.

Q 11 Explain noise pollution.

Q 12 Explain the hazards of noise pollution.

Q 13 Explain some measures to check noise pollution.

Q 14 Explain the working of eardrum with a diagram.

Q 15 Fill in the blanks with proper words.

- (a) Time taken by an object to complete one oscillation is called -----
- (b) The unit of frequency is -----
- (c) Unwanted sound is called -----

Q 16 Explain why lightning is seen earlier and thunder is heard later.

Q 17 Suppose your parents want to buy a house. They have chosen two houses; one on the road side and the other three lanes away from the road side. Which house will you prefer and why?

14. Chemical Effects of Electric Current

Q 1 Define electrolysis.

Mark (1)

Q 2 By which process, we can easily obtain gold ornaments at cheaper costs?

Mark (1)

Q 3 What is current?

Mark (1)

Q 4 Name two sources of electric current.

Mark (1)

Q 5 What happens when an electric current is passed through the copper sulphate solution?

Mark (1)

Q 6 What is meant by an electric circuit?

Mark (1)

Q 7 What is a battery?

Mark (1)

Q 8 Which type of energy is converted into electrical energy in an electric cell?

Mark (1)

Q 9 Which effect of electric current is utilized in electroplating?

Mark (1)

Q 10 Define electroplating.

Mark (1)

Q 11 Explain the term magnetic effects of an electric current.

Marks (2)

Q 12 Explain the term chemical effects of an electric current.

Marks (2)

Q 13 What is a conductor? Give two examples.

Marks (2)

Q 14 Why is an acid or an ionic salt added to water in the electrolysis of water?

Marks (2)

Q 15 Give some applications of the chemical effect of current. Marks (2)

Q 16 Solid sodium chloride does not conduct electricity while molten sodium chloride conducts. Explain why?

Marks (2)

Q 17 State two applications of electrolysis.

Marks (2)

Q 18 What is an insulator? Give two examples.

Marks (3)

Q 19 Define an electrode. Also define cathode and anode.

Marks (3)

Q 20 When tap water is used as a conducting liquid in the a closed electric circuit, the bulb glows. Why?

Marks (3)

Q 21 Write some points that should be remember while electroplating.

Marks (3)

Q 22 Write some uses of electroplating.

Marks (3)

Q 23 List the necessary conditions that help to ensure a smooth and firm deposit during electroplating.

Marks (3)

Q 24 Give one term for

(i) the electrode through which current enters the electrolyte.

(ii) the electrode connected to the negative terminal of the battery.

(iii) Purifying metals by using electrolysis.

Marks (3)

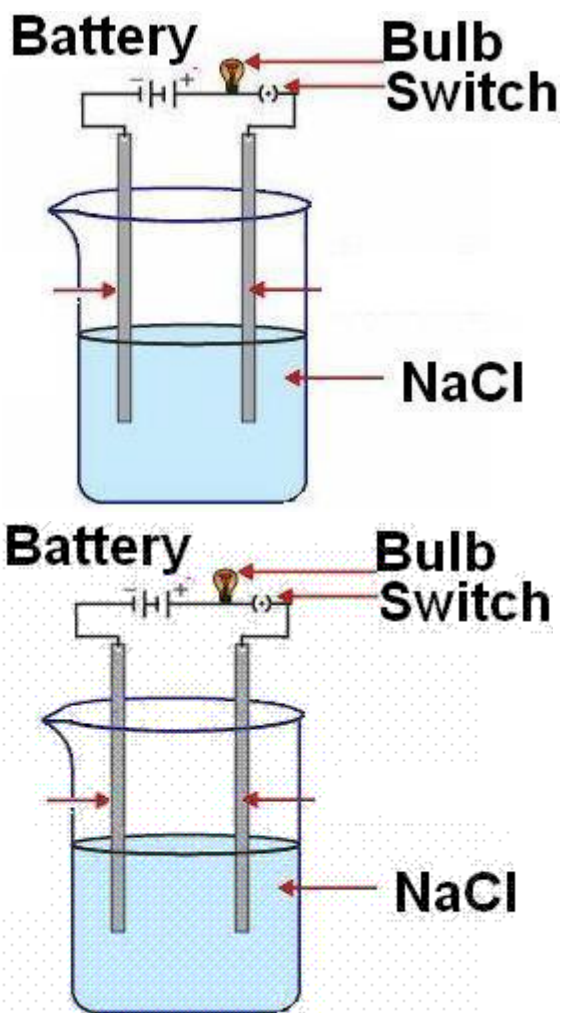
Q 25 Write some uses of electrolysis.

Marks (5)

Q 26 What is electroplating? How are steel spoons plated with silver? Explain with the help of diagram.

Marks (5)

Q 27 An experiment was set as shown below:



(i) Label the parts indicated by arrows in diagrams.

(ii) Will the bulb glow if the sodium chloride is in:

- (a) solid state
- (b) molten state
- (c) aqueous state

Explain your answer.

Marks (5)

- Q 1 What are the main effects of electric current?
- Q 2 State some applications of magnetic effect of electric current.
- Q 3 State some applications of heating effect of electric current.
- Q 4 How will you prepare electrodes?
- Q 5 What is LED?
- Q 6 What are conductor and insulator?
- Q 7 How will you identify that a particular substance is a conductor or insulator?
- Q 8 How will you make a tester?
- Q 9 If the bulb of the tester does not glow on touching it to a substance, does it always means that the substance is an insulator?
- Q 10 Liquids are conductor or insulator?
- Q 11 What do you understand by electrolyte and electrolysis?
- Q 12 How does the process of electroplating takes place?
- Q 13 How could you say that chemical reaction takes place during electroplating?
- Q 14 What is the use of electroplating?
- Q 15 A tester is used to check the conduction of electricity through two liquids, labeled 1 and 2. It is found that the bulb of the tester glows more brightly for liquid 1 then for liquid 2. What would you conclude?
- Q 16 What will you do to make distilled water conducting?
- Q 17 Is it safe for the electrician to carry out electrical repairs outdoors during heavy thunderstorm?
- Q 18 During a process used for purification of copper, a thin plate of pure copper and a thick rod of impure copper are used as electrodes. Copper from impure rod is sought to be transferred to the thin copper plate. Which electrode should be attached to the positive terminal of battery and why?

15. Some Natural Phenomena

Q 1 Mention two causes of earthquakes other than movements of tectonic plates?

Mark (1)

Q 2 What are the zones, where the earthquakes are likely to occur on the earth crust called?

Mark (1)

Q 3 What is Tsunami?

Mark (1)

Q 4 What happens, when an ebonite rod rubbed with wool is brought near a positively charged glass rod?

Mark (1)

Q 5 Which scale is used to measure the intensity of an earthquake?

Mark (1)

Q 6 What is an electroscope?

Mark (1)

Q 7 What is lightning?

Mark (1)

Q 8 During the lightning, flash appears first than thunder while both are coming from the same place, why?

Mark (1)

Q 9 What happens when an ebonite rod is rubbed with wool?

Mark (1)

Q 10 What is the nature of the charges generated due to rubbing?

Mark (1)

Q 11 What is meant by 'electrification by friction'?

Mark (1)

Q 12 Mention two hazards caused by earthquake.

Mark (1)

Q 13 What is seismograph?

Mark (1)

Q 14 List two places in India which are most threatened by earthquake.

Marks (2)

Q 15 What are tectonic plates?

Marks (2)

Q 16 What is a lightning conductor?

Marks (2)

Q 17 What is earthing?

Marks (2)

Q 18 What is a thunderstorm? How is it produced?

Marks (2)

Q 19 What is an earthquake?

Marks (2)

Q 20 We can easily charge non-metals like rubber, woollen clothes, plastics, etc. whereas we cannot charge a copper rod by rubbing easily. Why?

Marks (2)

Q 21 State the methods of charging an uncharged body.

Marks (3)

Q 22 Explain the process of an electric discharge?

Marks (3)

Q 23 What causes an earthquake? Which scale is used to measure an intensity of an earthquake?

Marks (3)

Q 24 Suggest three measures to protect ourselves from lightning.

Marks (3)

Q 25 Draw the diagram of an instrument, which can be used to detect the charge on a body. How it can be charged through conduction?

Marks (3)

Q 26 Suppose you are outside your home and an earthquake strikes. What precaution would you take to protect yourself?

Marks (3)

Q 27 Suppose you are at your home and an earthquake strikes. What precaution would you take to protect yourself?

Marks (3)

Q 28 What is earthing? Why earthing is provided in buildings?

Marks (3)

Q 29 Explain briefly the process of lightning.

Marks (5)

Q 30 State the charge (positive or negative) produced by friction in each of following pairs :-

(i) Fur and plastic rod.

(ii) Wool and an ebonite rod.

(iii) Glass rod and silk.

(iv) Fur and rubber rod.

(v) Fur and the glass rod.

Marks (5)

Q 31 What are the causes of earthquake? Explain briefly two hazards caused by an earthquake.

Marks (5)

Most Important Questions

Q 1 Fill in the blanks :

1. The charge acquired by a glass rod when it is rubbed with wool is_____.

2. Motion of charges constitutes an _____.

3. A charged balloon _____another charged balloon.

4. Lightning is an ____discharge.

Q 2 Describe with the help of a diagram an instrument which can be used to detect a charged body ?

Q 3 A crackling sound is heard while taking off sweater during winters. Explain ?

Q 4 Explain the various types of charges ?

Q 5 What is lightning. Explain the experiment conducted by Benjamin Franklin that showed sparks shared some similarity with lightning ?

Q 6 What is earthing. Explain why a charged body loses its charge if we touch it with our hand ?

Q 7 Why is earthing provided in buildings ?

Q 8 Suggest various measures to protect ourselves from lightning ?

Q 9 What is a lightning conductor.Explain ?

Q 10 What is an earthquake ?

Q 11 What are main causes of an earthquake ?

Q 12 What do you mean by seismic or fault zone ?

Q 13 List the places in India where earthquakes are more likely to strike ?

Q 14 Fill in the blanks :

1. Tremors are caused by _____ waves .
2. Seismic waves are recorded by an instrument called the _____.
3. Earthquake is expressed in terms of a magnitude on a scale called a _____.

Q 15 What is a Seismograph. Explain?

Q 16 Suppose you are inside your home and an earthquake strikes. What precaution would you take to protect yourself?

Q 17 If you are outdoors at the time of earthquake .What precaution would you take to protect yourself ?

Q 18 Write T against true and F against false in the following statements:

1. Like charges attract each other (T/F)
2. A charged glass rod attract a charged balloon (T/F)
3. Lightning conductor cannot protect a building from lightning (T/F)
4. Earthquakes can be predicted in advance (T/F)

Q 19 Fill in the blanks :

- (a) The process of transferring of charge from a charged object to the earth is called _____.
- (b) The process of electric discharge can occur between two or more _____, or between _____ and the _____.
- (c) The uppermost layer of the earth called the _____.

16.Light

Q 1 Name the form of energy which enables us to see the objects?

Mark (1)

Q 2 What types of waves are light waves?

Mark (1)

Q 3 Define a ray of light.

Mark (1)

Q 4 Define a beam of light?

Mark (1)

Q 5 Give an example of best reflector of light.

Mark (1)

Q 6 What type of image is formed in a plane mirror?

Mark (1)

Q 7 What type of image is formed on a cinema screen?

Mark (1)

Q 8 An object is placed at a distance of 10 cm in front of a plane mirror. How far would its image be formed?

Mark (1)

Q 9 Give any three phenomena shown by light.

Mark (1)

Q 10 How can visually challenged persons read and write?

Mark (1)

Q 11 Define reflection of light. Name the types of reflection.

Mark (1)

Q 12 How do we see objects?

Mark (1)

Q 13 If the incident ray strikes the mirror at 90° , what will be the angle of reflection?

Mark (1)

Q 14 If angle of incident is 30° then what will be the value of angle of reflection?

Mark (1)

Q 15 Name the instrument based on multiple reflection used to create new designs Mark (1)

Q 16 Name one means of communication provided by light.

Mark (1)

Q 17 Write the names of important parts of eye.

Mark (1)

Q 18 What is blind point?

Mark (1)

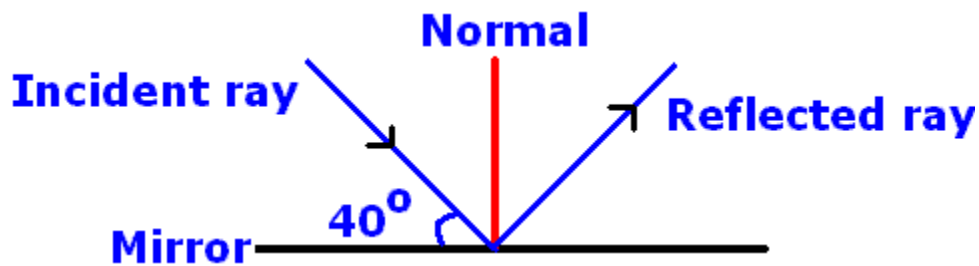
Q 19 Why the word AMBULANCE is written as its mirror image in front of the hospital vans?

Mark (1)

Q 20 Name two types of sources of light.

Marks (2)

Q 21 If the angle between the reflecting surface and the incident ray is 40° , find angle of incidence and angle of reflection ?



Marks (2)

Q 22 Define dispersion of light.

Marks (2)

Q 23 What do you mean by lateral inversion? How this phenomenon occurs?

Marks (2)

Q 24 What is cataract? How this defect can be removed?

Marks (2)

Q 25 Draw a neat and labeled diagram of human eye.

Marks (3)

Q 26 Why is it important to take care of our eyes? Mention some activities that may cause damage to our eyes.

Marks (3)

Q 27 Write the functions of the following:

- (a) Optic nerves.
- (b) Retina.
- (c) Cornea.

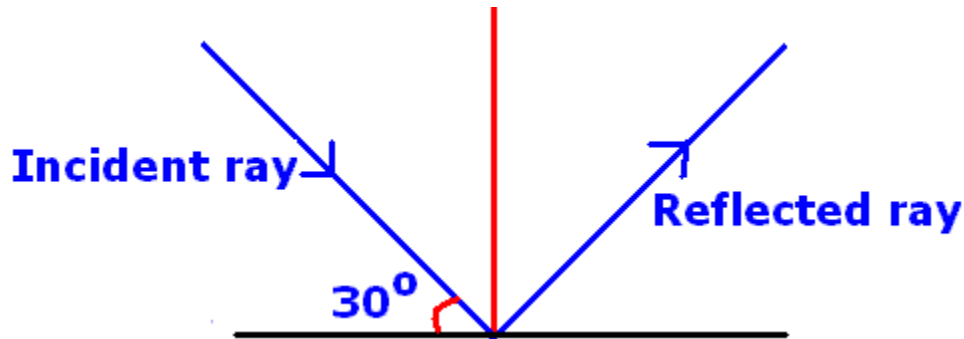
Marks (3)

Q 28 Define regular and irregular reflection with the help of diagrams.

Marks (3)

Q 29 What are the two laws of reflection?

Calculate angle of incidence and angle of reflection from the given diagram.



Marks (3)

Q 30 What are the characteristics of the image formed by a plane mirror? How is the position of image related to the position of the object?

Marks (5)

Most Important Questions

Q 1 How do we see objects?

Q 2 What is reflection?

Q 3 We can see images in mirror but cannot see in lens. Why?

Q 4 State laws of reflection of light.

Q 5 Which kind of mirror you use at home?

Q 6 What is lateral inversion?

Q 7 AMBULANCE is written in a strange manner on the ambulances. Why?

Q 8 State the characteristic of the image formed by plane mirror.

Q 9 Differentiate between regular and diffused reflection.

Q 10 What is multiple reflection?

Q 11 Explain the formation of multiple images?

Q 12 Two mirrors meet at right angles. A ray of light is incident on one at an angle of 45° as shown below. Draw the reflected ray from the second mirror.

Q 13 Draw ray diagram for reflection of incident ray which makes incident angle of 60° .

Q 14 How will you prepare a kaleidoscope?

Q 15 What are the uses of kaleidoscope?

Q 16 Give some examples of dispersion of light.

Q 17 What are constituent colours of light?

Q 18 Light appears white. Why?

Q 19 Soap bubble is transparent, but seems to be coloured in presence of light. Why?

Q 20 Explain different parts of human eye.

Q 21 The pictures in flip book appears to be moving. Why?

Q 22 What are the common eye defects? Give cure for these defects.

Q 23 State the precautions you will take to protect your eyes?

Q 24 How does our food effects our eye?

Q 25 How could visually challenged persons read and write?

Q 26 What do you know about the Braille system?

Q 27 Draw a labeled diagram of human eye.

17.Stars and the Solar System

Q 1 Write the name of first satellite of India.

Mark (1)

Q 2 What is a natural satellite?

Mark (1)

Q 3 Why do we classify the Sun as a star?

Mark (1)

Q 4 Which comet appears after every 76 years?

Mark (1)

Q 5 Name any two artificial satellites of our country.

Mark (1)

Q 6 Name a star that always appear stationary from Earth's surface?

Mark (1)

Q 7 What do you mean by the term phases of moon?

Mark (1)

Q 8 What are celestial bodies?

Mark (1)

Q 9 Why the village sky is so different from the night sky in big cities?

Mark (1)

Q 10 The Sun rises in the east and sets in the west. Why?

Marks (2)

Q 11 What do you understand by light year? What is its value in km?

Marks (2)

Q 12 What is a Pole star?

Marks (2)

Q 13 What does the Solar system comprises of?

Marks (2)

Q 14 Give reason for

(i) Change in seasons on the earth

(ii) Different phases of moon.

Marks (2)

Q 15 Why meteors are called shooting stars even though they are not stars?

Marks (2)

Q 16 Which constellation is called 'Hunter'?

Marks (2)

Q 17 Can we hear any sound on the Moon? Explain your answer.

Marks (2)

Q 18 What are galaxies?

Marks (2)

Q 19 Write uses of artificial satellites.

Marks (3)

Q 20 Write short notes on Meteors and Meteorites.

Marks (3)

Q 21 What is the difference between a star and a constellation?

Marks (3)

Q 22 Give one word for each

(a) Stars forming a recognisable pattern

(b) A solid body from outer space that is sometimes able to reach the earth's surface

(c) A belt of small planetoids present mainly in between the orbits of Mars and Jupiter.

Marks (3)

Q 23 Give some details about Moon.

Marks (3)

Q 24 Write any three differences between Galaxy and Constellations. Marks (3)

Q 25 With the help of diagram, show the relative positions of prominent stars in

(a) Ursa major and

(b) Orion.

Marks (5)

Q 26 (i) What do you mean by solar system?

(ii) In the solar system, name the following

(a) The largest planet

(b) The smallest planet

(c) The brightest planet

(d) The planet with largest number of natural satellites. Marks (5)

Q 27 Distinguish between a star and a planet

Marks (5)

Q 1 Fill in the blanks:

- (a) The nearest planet to the Sun is _____.
- (b) The planet, which appears reddish in colour, is _____.
- (c) A group of stars that appear to form a figure or picture _____.

Q 2 Fill in the blanks:

- (a) A celestial body that revolves around a planet is known as _____.
- (b) Shooting stars are the name given to the _____.
- (c) Asteroids are found between the orbits of _____ and _____.

Q 3 Fill in the blanks:

- 1) A _____ is that on, which the whole disc of the moon is visible.
- 2) On the 15th day after a full moon day the moon is not visible at all, we call this day as a _____.
- 3) After a _____ every night the illuminated portion of the moon diminishes.

Q 4 Fill in the blanks:

- 1) Distances of stars are expressed in _____ years.
- 2) One light year is the distance travelled by light in _____ year.
- 3) Moon neither has _____, nor any _____ on its surface.

Q 5 Fill in the blanks:

- 1) The tail of a comet is always directed _____ from the sun.
- 2) Comets revolve around the Sun in highly _____ orbits.
- 3) Halley's comet appears after nearly every _____ years.

Q 6 Fill in the blanks:

- 1) An _____ is an object that has been placed into orbit by human beings.
- 2) _____ was the first Indian satellite.
- 3) _____ are used for forecasting weather, transmitting television and radio signals.

Q 7 Fill in the blanks:

- 1) The Earth has one natural satellite, the _____.
- 2) _____ is the farthest planet from the Sun in the Solar System.
- 3) _____ has a prominent system of rings.

Q 8 What do you mean by the term moon phase. Explain various phases of the moon?

Q 9 Why do the phases of moon occur?

Q 10 The planets do not collide while revolving around the Sun. Explain?

Q 11 What is a constellation? Name any three constellations?

Q 12 Explain the constellation Ursa Major?

Q 13 How can we locate the pole star with the help of Ursa Major?

Q 14 Explain the constellation Orion?

Q 15 Differentiate planets and stars?

Q 16 What do you understand by the terms, period of rotation and period of revolution of a planet?

Q 17 If we imagine Saturn in a large pool of water then it will float. Why?

Q 18 What do you understand by the term solar system? Give names of the planets in our solar system in increasing order of distance from the sun?

Q 19 What is a satellite? Differentiate with examples artificial and natural satellites?

Q 20 Name the first Indian satellite. Give the uses of artificial satellite?

Q 21 What are comets?

Q 22 What are meteors and meteorites?

Q 23 What is a meteor shower?

18. Pollution of Air and Water

Q 1 Define pollution.

Mark (1)

Q 2 Which gas is the main constituent of air?

Mark (1)

Q 3 Give two examples of air pollutants.

Mark (1)

Q 4 Which two gases cause acid rain?

Mark (1)

Q 5 Which phenomenon is responsible for global warming?

Mark (1)

Q 6 What is Marble cancer?

Mark (1)

Q 7 Which plan was made to save river Ganga?

Mark (1)

Q 8 Name two chemical contaminants of water.

Mark (1)

Q 9 Which gas is produced due to incomplete combustion of fuels?

Mark (1)

Q 10 Name the chemical which is used for the purification of water.

Mark (1)

Q 11 What is Asthma?

Marks (2)

Q 12 What is air pollution? Which two diseases are caused due to air pollution?

Marks (2)

Q 13 Define potable water? Write the name of any two methods used for the purification of water.

Marks (2)

Q 14 What is ozone? How does it protect our environment?

Marks (2)

Q 15 What is the Greenhouse effect? How does it affect the atmosphere?

Marks (2)

Q 16 What steps has the Supreme Court taken to save the Taj Mahal from air pollution?

Marks (2)

Q 17 What is water pollution? Give two examples of water pollutants.

Marks (2)

Q 18 What is global warming? Write any one harmful effect of global warming.

Marks (2)

Q 19 What is smog? How it is harmful?

Marks (2)

Q 20 Why do we need to filter water before drinking? Name any two water borne diseases.

Marks (2)

Q 21 What are the causes of air pollution.

Marks (3)

Q 22 What is acid rain? How is it formed?

Marks (3)

Q 23 Write a short note on depletion of ozone layer.

Marks (3)

Q 24 What is eutrophication? Explain.

Marks (3)

Q 25 How can you conserve water?

Marks (3)

Q 26 Write any three harmful effects of polluted water?

Marks (3)

Q 27 What was the Ganga Action Plan? Why it failed in achieving its aim?

Marks (3)

Q 28 What measures should be taken to control air pollution?

Marks (5)

Q 29 Vishal went to Agra after a long period of time. He saw that Taj-Mahal was not as white as earlier. Give the reason for it and explain?

Marks (5)

Q 30 What are the sources of water pollution?

Marks (5)

Q 1 What is pollution?

Q 2 What are pollutants?

Q 3 Write the types of pollution.

Q 4 Name any two air pollutants.

Q 5 Name the main constituent gas of air.

Q 6 Name two compounds which cause acid rains.

Q 7 Write two examples of natural sources of air pollution.

Q 8 Which of the following is responsible for the depletion of ozone layer?

(a) Carbon dioxide

(b) Carbon monoxide

(c) CFCs

(d) Sulphur dioxide

Q 9 Name the phenomenon which causes global warming.

Q 10 Name the factors which reduce the visibility in air.

Q 11 Which of the following fuel is being used as the pollution free fuel?

(a) CNG

(b) Petrol

(c) Kerosene

(d) Diesel

Q 12 What is marble cancer?

Q 13 What is smog?

Q 14 Write two causes of air pollution.

Q 15 How the presence of ozone in our environment helpful for us ?

Q 16 What are the harmful effects of air pollution?

Q 17 What is Global warming?

Q 18 What do you understand by corrosion of Taj Mahal?

Q 19 What steps has the Supreme Court taken to save the Taj Mahal from air pollution?

Q 20 Name two diseases caused due to air pollution.

Q 21 What is the Green House effect?

Q 22 Fill in the blanks-

(a)---- are the substances which contaminate air and water.

(b) Pollution affects----, ----- and human beings.

(c) -----refinery is producing pollutants near Taj Mahal.

(d) -----gas is mainly responsible for green house effect.

Q 23 What is the difference between pure air and polluted air?

Q 24 What are the effects of global warming?

Q 25 What is water pollution?

Q 26 Name any two water pollutants.

Q 27 Which Indian river is considered as one of the ten most polluted rivers in the world?

Q 28 Name the plan which is implemented to save Ganga.

Q 29 Name the elements which when released in water lead to toxicity in animals and plants.

Q 30 Write the name of any two sources of water pollution.

Q 31 What is potable water?

Q 32 Name any two water borne diseases.

Q 33 Write the name of any two methods used for the purification of water.

Q 34 Which of the following chemicals is used for the purification of water?

(a) Fluorine

(b) Chlorine

(c) Bromine

(d) Iodine

Q 35 How does the increased level of nutrients in the water affect the survival of aquatic animals?

Q 36 Name the type of filter generally used as household filter.

Q 37 Name the physical properties we look for in drinking water?

Q 38 Water pollution leads to –

(a) Soil erosion

(b) Leaching

(c) Acid rain

(d) Eutrophication

Q 39 Why Ganga action plan failed?

Q 40 Find the odd one out-

(a) Cholera

(b) Asthma

(c) Jaundice

(d) Typhoid

Q 41 Why hot water released by power plants considered as a pollutant?

Q 42 Why do we need to filter water before drinking?

Q 43 Name the factors which pollute water.

Q 44 What measures should be taken to control water pollution?

Q 45 How can you save water?

Q 46 Fill in the blanks-

(a) ----- is one of the most polluted towns in U.P.

(b) We get our drinking water from-----.

(c) ----- should be installed in all industrial areas.

(d) ----- is a precious natural resource.

(e) Water can be conserve by using ----- Principle.