

Elevation in Life



Part-1 to 5

Elevation in Life -1

Unit 1 : Plant Life

1.The World of Plants

A. 1. c 2. b 3. b 4. a 5. c

B. 1. T 2. T 3. F 4. T 5. F

C. 1. Neem, Mango 2. Mint, Coriander 3. Money Plant, Pea Plant 4. Watermelon, Pumpkin

D. 1. Trees are big, tall and strong plants. 2. Herbs are very small plants with soft stems. 3. Creepers are those plants that grow and spread along the ground. 4. Roots, stem, leaves and flower. 5. light, air and water.

HOTS Questions

1. Creepers. 2. The plant stem is so weak that it can grow and spread along the ground.

2. Plant as Food

A. 1. b 2. c 3. a 4. b 5. c

B. 1. T 2. F 3. T 4. F 5. T

C. 1. Arhar, Moong 2. Red Chilly, Black Pepper 3. Mango, Banana 4. Cauliflower, Brocoli

D. 1. Fruits, vegetables, rice, pulses, spices, etc. 2. A structure of a plant that contains its seeds. 3. Carrot, radish. 4. Pulses : arhar, moong. Cereals : rice, wheat. 5. Red chilly, black pepper, clove, cardamom.

HOTS Questions

1. Carrot, radish, onion, cabbage and tomato. 2. Red Chilly.

Unit-2 : Animal Life

3. The World of Animals

A. 1. c 2. c 3. b 4. a 5. c

B. 1. F 2. T 3. F 4. F 5. T

C. 1. Animals that live in jungles. Tiger and monkey. 2. Animals which can be tamed to get work or food. Cow and horse. 3. Animals that live in water. Fish and octopus. 4. Lizard, Tortoise and Snake. 5. Birds fly with the help of their wings.

HOTS Questions

1. He is telling a lie because lion lives in a jungle. If he has kept the lion in his house, the lion would have eaten him. 2. Because elephant does not have wings to fly.

4. Food and Homes of Animals

A. 1. b 2. b 3. c 4. a 5. b

B. 1. F 2. F 3. T 4. T 5. F

C. 1. nest 2. kennel 3. beehive 4. den

D. 1. All living things. 2. Cow and goat. 3. Lion, leopard and wolf. 4. An omnivorous animal is an animal which eats both meat and plants for its food. Dog and bear. 5. Cow, hen and dog.

HOTS Questions

1. Lion will die because there is no food (animal) left for him to feed himself. 2. Lizard.

5. Young Ones of Animals

A. 1. c 2. a 3. c 4. c 5. b

B. 1. T 2. F 3. F 4. T 5. F

C. 1. Cub. 2. Duckling. 3. Calf. 4. Cygnet. 5. Calf.

HOTS Questions

1. Duck. 2. Joey.

Unit-3 : Space and Environment

6. Air

A. 1. a 2. b 3. b 4. c 5. b

B. 1. F 2. T 3. T 4. F 5. T

C. 1. Air is the natural thing that surrounds us. We cannot see air but we need to survive. 2. to breathe, to fill balloons, to fly kites, etc. 3. by blowing air into a balloon. 4. Air helps things to burn and air makes parachute to fly. 5. Wind is a fast blowing air and storm is a thunder and lightning along with wind and rain.

HOTS Questions

1. No, because there is no air in the closed jar. 2. Fish breathes with the help of its gills.

7. Water

A. 1. b 2. c 3. b 4. a 5. c

B. 1. T 2. F 3. T 4. T 5. F

C. 1. to drink, bath, cook, wash, etc. 2. Plants need water to grow and animals need water to drink and to bath. 3. (i) For bathing. (ii) For cooking food. (iii) For washing clothes. 4. Rivers, lakes and ponds. 5. because it is free from germs and bacteria.

D. 1. To drink. 2. For bathing. 3. For cooking food. 4. For washing clothes.

HOTS Questions

1. Rain water is not a clean form of water. 2. No, she should close the tap when not in use.

8. Weather and Seasons

A. 1. c 2. c 3. a 4. a 5. c

B. 1. F 2. T 3. F 4. T 5. F

C. 1. Weather is the.....period of time. 2. Five; summer season,

winter season, rainy season, spring season and autumn season. 3. because cotton clothes absorb our sweat and keep us cool. 4. Woollen clothes 5. Beautiful flowerson trees.

D. Do yourself.

HOTS Questions

1. Yesterday, the weather was cold and she wore cotton clothes. 2. Cotton clothes.

9. The Sun, Moon and Stars

A. 1. b 2. b 3. c 4. a 5. c

B. 1. F 2. T 3. T 4. F 5. F

C. 1. a big ball of fire. 2. heat and light. 3. Half moon, Crescent moon and Full moon. 4. dots of light. No. 5. its seven colours.

HOTS Questions

1. There are billions of stars in the sky and we cannot count them. 2. Rainbow.

Unit-4 : Human Body

10. Knowing Your Body

A. 1. c 2. a 3. c 4. b 5. c

B. 1. F 2. T 3. F 4. T 5. T

C. 1. to write, clap and hold. 2. Five; eyes, ears, nose, tongue and skin. 3. to see the things. 4. to hear the sound. 5. Skin.

HOTS Questions

1. No, because a deaf person is unable to hear any sound. 2. Because she has grown, so her childhood frock cannot be fit to her.

11. Food for Health

A. 1. c 2. c 3. a 4. b 5. c

B. 1. T 2. F 3. T 4. F 5. F

C. 1. to live and grow, to become strong and remain healthy. 2. fruits, vegetables, food grains, etc. Mango

and potato. 3. Milk 4. Butter, curd and ghee. 5. Never eat in hurry and don't laugh and talk while eating.

HOTS Questions

1. Because fried foods in large amount are not good for health. She should eat fresh fruits and green vegetables to recover soon. 2. Drink at least two glasses of milk every day.

12. Housing and Clothing

A. 1. a 2. b 3. c 4. b 5. c

B. 1. T 2. F 3. F 4. T 5. T

C. 1. to live in. 2. eat the food on dining table. 3. sit and entertain our guests. 4. they keep us cool. 5. to avoid getting wet.

HOTS Questions

1. in the study room. 2. She will wear a raincoat and gumboots or carry an umbrella to protect herself from getting wet.

13. Keeping Healthy

A. 1. b 2. c 3. b 4. a 5. c

B. 1. T 2. F 3. T 4. T 5. T

C. 1. We need.....and healthy. 2. strong and healthy. 3. Swimming, running and walking. 4. (i) Brush your teeth twice a day. (ii) Take bath every day. 5. (i) Do not write on the walls. (ii) Wear neat, clean and ironed clothes.

HOTS Question

No one likes dirty things and people.

14. Keeping Safe

A. 1. c 2. a 3. b 4. c 5. a

B. 1. T 2. F 3. F 4. T 5. F

C. 1. be alert and follow safety rules. 2. staying away from harm. 3. (i) Walk on the footpath. (ii) Cross the road at zebra crossing. 4. (i) Do not

play with knife, blade and scissors.

(ii) Do not play with electrical appliances. 5. an elder.

HOTS Questions

1. Because she did not know that person. 2. She was badly hurt because she crossed the road when traffic light was green and the traffic was rushing on the road.

Elevation in Life -2

1. Living and Non-Living Things

A. 1. b 2. c 3. b 4. c 5. a

B. 1. F 2. T 3. F 4. T 5. T

C. 1. Plant, Bird 2. Chair, Table 3. Water, Rocks 4. Pencil and Paper

D. 1. The things which have life. 2. Pencil, chair and table. 3. A book willto another place. 4. (i) Living things can move. (ii) Living things need food and water. (iii) Living things grow. 5. Things that are found in nature. Water and rocks.

HOTS Questions

1. Lie, because computer is a non-living thing. 2. No, because water is a natural thing.

Unit-1 : Plant Life

2. Types of Plants

A. 1. c 2. a 3. b 4. c 5. b

B. 1. T 2. T 3. F 4. T 5. F

C. 1. Neem, Banyan 2. Rose, Jasmine 3. Grass, Tulsi

D. 1. Trees are big plants having strong stems. Neem and banyan. 2. Herbs are very small plants having soft stems. Grass and tulsi. 3. Climbers grow only with the support and rely on something while creepers do not need support and grow along the soil surface. Climbers- pea plant and money

plant creepers- pumpkin and bottle gourd. 4. Leaves, fruits, flowers, stems, roots and seeds.

HOTS Questions

1. True, because plant needs water to grow 2. No, because plants need sunlight to grow and make food.

3. Uses of Plants

A. 1. b 2. c 3. a 4. c 5. a
B. 1. F 2. F 3. T 4. F 5. T
C. 1. Rice, Arhar 2. Cinchona, Quinine 3. Tea, Coffee 4. Turmeric, Cardamom
D. 1. Food, medicines, fibres, wood, oil, etc. 2. from seeds and fruits of some plants. 3. Cereals : Rice, wheat and maize. Pulses : Arhar, moong and rajma. 4. Paper is made from bamboo plant, gum from acacia tree and rubber from juice of rubber tree. 5. Most of the energy consumed... from the soil.

HOTS Questions

1. Quinine. Neem and tulsi 2. Bed, door, window, table and chair.

Unit-2 : Animal Life

4. Animals that Help Us

A. 1. b 2. c 3. b 4. a 5. c
B. 1. T 2. T 3. F 4. T 5. F
C. 1. Cow, Goat 2. Dog, Cat 3. Butter, Ghee
D. 1. Animals that we keep as pets in our homes or on farms. 2. Butter, curd and ghee. 3. from beehive 4. skin of the animals. Jacket and shoes. 5. We must give.....proper place.

HOTS Questions

1. Sheep 2. Camel. Camel is a domestic animal. It is known as ship of desert.

5. Wild Animals

A. 1. b 2. c 3. a 4. c 5. a
B. 1. F 2. T 3. T 4. F 5. T
C. 1. Rabbit, Giraffe 2. Lion, Tiger 3. Crow, Bear 4. Jackal, Vulture
D. 1. Animals that live in jungles. 2. Animals that eat grass, leaves and fruits. Rabbit and giraffe. 3. Animals that kill and eat the flesh of other animals. Lion and tiger. 4. Animals that eat the flesh of dead animals. Jackal and vulture. 5. Animals that eat both plants and flesh of other animals. Crow and bear.

HOTS Questions

1. Lion live in a jungle and crocodile lives in water. Both of them are wild animals. They are carnivores. 2. She was standing in front of them in the zoo.

Unit-3 : Human Body

6. Bones and Muscles

A. 1. a 2. c 3. b 4. c 5. b
B. 1. T 2. F 3. T 4. F 5. F
C. 1. bones and muscles. 2. bones provide support to our body and help to form our shape. 3. to walk, run, play and jump. Also to open and close eyelids and the movement of muscles cause heart-beat. 4. by exercise. 5. The position.....called posture.

HOTS Questions

1. Without joints we do not move or bend our body parts. 2. Shivi is sitting with her shoulder bent.

7. Food for Health

A. 1. c 2. a 3. b 4. c 5. a
B. 1. T 2. F 3. F 4. T 5. F
C. 1. to get energy to do work, grow and stay healthy and also to build

our bones and muscles healthy.
 2. Energy-giving foods are.....
 body instant energy. Wheat and rice.
 3. Body-building foods are
muscles strong. Milk and fish.
 4. The people who.....
 are called vegetarians. On the other
 hand.....non-vegetarians.
 5. (i) Eat fresh and clean food.
 (ii) Chew your food properly and
 slowly.

HOTS Questions

1. We will suffer from diseases.
 2. Always eat fresh food items and
 never purchase any food items from
 roadside vendors.

8. House Where We Live

A. 1. a 2. c 3. b 4. a 5. c
B. 1. T 2. F 3. T 4. T 5. F
C. 1. To live safe and protect us from
 heat, cold, rain, wind, etc.
 2. A kachcha house is
 grass, etc. and a pucca house is
 iron, etc. 3. so that the water
 and snow easily fall off the roofs.
 4. A caravan is on wheels.
 5. We should flies
 regularly.

HOTS Questions

1. Tent 2. This is a houseboats and
 there are no houseboats in Delhi.

9. Keeping Safe

A. 1. b 2. a 3. c 4. b 5. c
B. 1. T 2. T 3. F 4. T 5. F
C. 1. to avoid accidents. 2. Walk on
 the footpath and cross the road at
 zebra crossing only. 3. Stand in a
 queue. 4. Don't shout..... the
 driver and do not keep
 bus. 5. (i) Play safegames
 and do not swim.....safety.

HOTS Questions

1. Children were making a noise
 which distracted the bus driver and
 caused accident. 2. No, because she
 is swimming alone and without
 tube.

10. First-Aid

A. 1. c 2. b 3. c 4. a 5. b
B. 1. T 2. F 3. T 4. F 5. T
C. 1. First aid hurt.
 2. scissors, cotton, burnol,
 etc. 3. Wash thewater, clean
 again.....dettol and tie a.....
 wound. 4. Apply a splint
 fracture and apply ice packs to
relieve pain. 5. Wipe the
handkerchief and wash
 thewater. Cover the.....
 dressing.

HOTS Questions

Wrong. Because in case of broken
 leg she should apply pressure to the
 wound with a sterile bandage, apply
 a splint to the area above and below
 the broken part, and apply ice pack
 to limit swelling and reduce pain.

Unit-4 : Space and Environment

11. Air Around Us

A. 1. b 2. b 3. a 4. c 5. b
B. 1. F 2. F 3. T 4. F 5. T
C. 1. Animals, plants and every
 living being. 2. changing of water
 into water vapours. 3. changing of
 water vapours into water.
 4. Properties : Air has weight.....
 occupies space. Uses : to fly kites,
 dry clothes, run windmill, etc. 5.
 Breeze is a gentle wind and storm is
 a fast blowing wind.

HOTS Questions

1. Rajat inhaled polluted air in his

lungs and causes coughing. The doctor advised so because while coughing, the germs are spread in the nearby surroundings. 2. No, because no one can fly kites when there is heavy rain and storm.

12. Water

A. 1. b 2. a 3. c 4. b 5. c

B. 1. F 2. T 3. T 4. T 5. F

C. 1. to drink, to cook, to bathe, to swim, etc. 2. springs, rivers, lakes, wells, etc. 3. to remain healthy. 4. Solid (ice), liquid (water) and gas (steam). 5. conversion of solid into liquid.

HOTS Questions

1. There would be no water cycle and without water cycle there would be no water to sustain life on Earth. 2. Water had been evaporated.

13. Rocks and Minerals

A. 1. c 2. a 3. c 4. b 5. c

B. 1. T 2. F 3. T 4. F 5. F

C. 1. A rock is.....mainly minerals. Marble and sandstone. 2. for making buildings. 3. Chalk and slate 4. Talc, graphite and diamond. 5. in pencils, batteries, construction, etc.

HOTS Questions

1. No, because statues cannot be made with chalk directly as chalk is a soft rock. 2. steam engine.

14. Light and Shadow

A. 1. a 2. b 3. b 4. c 5. b

B. 1. T 2. T 3. F 4. T 5. T

C. 1. A natural phenomenon that makes things visible. Light travels give out light. 2. We see the candles. 3. At night..... and stars.

4. Shadow is an by an object. 5. When we move the source of light away.

HOTS Questions

No, because the colour of shadow is always black.

Elevation in Life -3

Unit-1: Food

1. Eating Habits of Animals

A. 1. b 2. c 3. a 4. d 5. c

B. 1. T 2. F 3. T 4. T 5. F

C. 1. Cow, Zebra 2. Tiger, Lion 3. Bear, Crow 4. Jackal, Hyena

D. 1. to live and get energy to do different activities, etc. 2. Animals thatare called herbivores. Cow and horse. Animals thatare called carnivores. Tiger and lion. 3. Some animals thatare called omnivores. Bear and cat. Animals that.....are called scavengers. Jackal and hyena. 4. sharp pointedof their prey. 5. A food chain shows howother animals.

HOTS Questions

1. No, because earthworms help the farmers in digging the soil. 2. Wrong, because buffalo eats plant and plant parts.

Unit-2 : Materials

2. Keeping Safe

A. 1. d 2. a 3. b 4. c 5. d

B. 1. T 2. F 3. F 4. F 5. T

C. 1. injury, damage 2. wet 3. zebra-crossing 4. quiet 5. injured

D. 1. to avoid accidents. 2. state of being safe from harm or danger. 3. Never lean.....kitchen. 4. Always walk moving bus. 5. First aid is theit is required.

HOTS Questions

1. Because he could not have using helmet at that time which is against of safety rules. 2. No, because she could get an electric shock.

3. Housing and Clothing

A. 1. c 2. b 3. d 4. c 5. a
B. 1. F 2. F 3. T 4. T 5. F
C. 1. good 2. diseases 3. Dustbins 4. profession 5. plants, animals
D. 1. To live safe and protect us from heat, cold, rain, wind, etc. 2. Sufficient sunlight..... the house, there should be..... fresh air in and well-planned drainage..... from house. 3. The floors..... cleaned daily. 4. bricks, iron rods, wood, glass, marble, cement, etc. 5. During the cold winter months which keep us cool.

HOTS Questions

1. Because open drains are home for mosquitoes. Mosquitoes spread malaria. 2. Woollen clothes.

4. Soil

A. 1. d 2. a 3. b 4. b 5. c
B. 1. F 2. F 3. T 4. F 5. T
C. 1. breakdown 2. soil particles 3. Humus 4. sticky 5. agriculture
D. 1. Soil is.....wind, glaciers, etc. 2. Humus, clay, gravel, etc. 3. Sandy soil is a soil that has smaller grains. It is found on seashore, beaches and deserts. 4. for making toys, pots and utensils. 5. Take some.....on the lid.

HOTS Questions

1. Some rain water soaks into the soil. 2. No, because loamy soil is found in plains and plateaus.

5.States of Matter

A. 1. c 2. d 3. a 4. b 5. c
B. 1. T 2. T 3. F 4. T 5. F
C. 1. space, weight 2. size, volume 3. Gases 4. evaporation 5. condensation
D. 1. solid, liquid and gas 2. Solids have a particular shape while liquids do not have any shape. 3. Take a balloon shape. 4. Evaporation is changing of water into water vapour while condensation is changing of water vapour into water. 5. The water from the water cycle.

HOTS Questions

1. By putting it in the refrigerator.
2. Water got evaporated.

Unit-3: The World of the Living and Non-Living

6. Living and Non-Living Things

A. 1. a 2. d 3. c 4. b 5. a
B. 1. F 2. T 3. T 4. F 5. T
C. 1. animals, human beings 2. sunflower 3. seedling 4. nostrils 5. reproduction
D. 1. Living things don't have life. 2. Food gives activities. 3. A baby..... tree finally. 4. Animals like cow through gills. 5. Birds help in.....to another.

HOTS Questions

1. No, because train does not possess the characteristics of living things. Train cannot move itself. It requires fuel to move. 2. No, because toys are non-living things and non-living things never die.

7. Parts of a Plant

A. 1. d 2. c 3. b 4. a 5. c

- B.** 1. T 2. F 3. F 4. F 5. T
C. 1. shoot 2. dissolved 3. climbers
 4. chlorophyll 5. colour, smell
D. 1. When the maincalled tap
 root. When a number.....called
 fibrous root. 2. Roots anchor
 some plants. 3. The
 stem..... to the leaves. 4. There
 are threewide part of the
 leaf. 5. helps in reproduction.

HOTS Questions

1. Because plant need sunlight to
 grow. 2. She will need shredded
 cabbage, onion, cucumber,carrots,
 radish,tomato and beetroot sliced
 into rings, 2 tsp lemon juice, salt and
 chaat masala.

8. Birds

- A.** 1. b 2. d 3. a 4. c 5. d
B. 1. F 2. T 3. F 4. T 5. F
C. 1. beaks 2. sea coasts 3. Perching
 4. grains, insects 5. young ones
D. 1. Feathers, specially.....them
 to fly. 2. Birds can.....
 movement. 3. Beaks serve
 enemies too. 4. Raptors are the
 prey. 5. A birdyoung
 ones. Grasses, sticks and mud.

HOTS Questions

1. Penguins could only live or
 survive in cold places. 2. Tailor bird.

9. Human Body

- A.** 1. c 2. d 3. a 4. b 5. c
B. 1. F 2. T 3. F 4. T 5. F
C. 1. strong, healthy 2. windpipe
 3. Digestion 4. vessels, muscles
 5. sense organs
D. 1. The skeleton is206
 bones. 2. Theywalking,
 jumping, etc. 3. Digestion begins
 the anus. 4. The

- circulatory... is called circulation.
 5. The kidneysflowing
 from the kidneys.

HOTS Questions

1. No, because as she grows older
 her bones joined together to make
 big bones which ends up with 206
 bones. 2. He feels the things by
 touching it with the help of skin.

Unit 4 : Natural Phenomena

10. Water and Weather

- A.** 1. b 2. d 3. a 4. c 5. b
B. 1. T 2. F 3. F 4. T 5. T
C. 1. Condenses, Clouds 2. pollution
 3. weather 4. rain ,wind 5. weather
D. 1. The heat is called
 water cycle. 2. Polluted water
make us sick. 3. We can also
 clean containers. 4. The
 general condition called
 weather. Moving air
 storm. 5. Sometimes it does not
life and property.

HOTS Questions

1. During summers Sun shines very
 brightly which evaporates the water
 from clothes quickly. 2. Water
 overflowed and caused houses,
 fields, buildings and other areas to
 be flooded which led to the scarcity
 of food and destruction of life.

Unit 5 : Natural Resources

11. The Earth, Sun, Moon and Stars

- A.** 1. a 2. d 3. c 4. d 5. a
B. 1. F 2. T 3. F 4. T 5. F
C. 1. orbit 2. Copernicus 3.
 imaginary 4. summer 5. Earth ,Sun
D. 1. There are.....Neptune.
 2. Long time back.....on a
 round surface. 3. Rotation of the

Earth causes day and night. 4. When the moon is full moon. 5. They are big of their own. Constellations the night sky.

HOTS Questions

1. Because the sky is dominated by the Sun during daytime. 2. No, because the shape of the Earth is round but the surface is flat.

12. Our Environment

A. 1. c 2. a 3. d 4. b 5. a

B. 1. F 2. F 3. T 4. T 5. F

C. 1. environment 2. flies, mosquitoes 3. population 4. garbage 5. contaminated

D. 1. There should be a proper drainage system. Water should not.....water coolers. 2. All the natural..... exhausted. 3. The contamination.....pollution. 4. Breathing cleankills them. 5. Typhoid, jaundice, cholera, etc.

HOTS Questions

1. Open drains, garbage dumped in open drains, standing water in puddles and water coolers. 2. Life will not exist without natural resources on Earth.

Unit 6 : Moving Things, People and Ideas

13. Measurement

A. 1. a 2. d 3. c 4. a 5. b

B. 1. F 2. T 3. F 4. T 5. F

C. 1. length 2. Weight 3. grams 4. Milk 5. temperature

D. 1. Measurement something. 2. Length is the..... another. We use a.....length. 3. Weight is the of a substance. Fruits, vegetables,

pulses, etc. 4. with the help of thermometer. 5. 37 °C (98.4 ° F); by using clinical thermometer.

HOTS Questions

1. Weighing machine 2. Because mangoes are measured in grams or kilograms.

Elevation in Life -4

Unit-1 : The World of Plants

1.Functions of Parts of a Plant

A. 1. c 2. b 3. d 4. c 5. b

B. 1. F 2. T 3. F 4. T 5. T

C. 1. Leaf blade, Petiole 2. Stems, Branches 3. Petals, Sepals 4. Ovary, Style

D. 1. Root system and shoot system. 2. transportation of water and nutrients, transpiration and help the plants to make their food. 3. Photosynthesis is the sunlight. Carbon dioxide + Water → Glucose + Oxygen. 4. transfer of pollento the stigma. Pollination takes of the flower. 5. A food chain air and water.

HOTS Questions

1. Plants have chlorophyll but animals don't have. Animals eat plants and other animals. 2. Rakhi, we eat the stem of some plants like potato.

2. Habitats of Plants

A. 1. c 2. d 3. b 4. d 5. d

B. 1. F 2. F 3. F 4. F 5. T

C. 1. (i) chir (ii) pine 2. (i) teak (ii) neem 3. (i) cactus (ii) prickly pear 4. (i) lotus (ii) hydrilla

D. 1. Their branches.....during snowfall. 2. The plants found.... .rock crevices. 3. The roots

of.....spongy and light. 4. These plants getbody surface. Hydrilla, Vallisneria 5. Venus flytraptrap the insect.

HOTS Questions

1. Underwater plants help to clean the water as they use the carbon dioxide released by the animals.
2. No, because water hyacinth is a free floating aquatic plant.

Unit-2 : The World of Animals

3.Reproduction in Animals

- A.** 1. c 2. b 3. a 4. d
B. 1. T 2. F 3. T 4. T 5. F
C. 1. Dog, Cow 2. Hen, Pigeon 3. Lizard, Crocodile 4. Grasshopper, Crockroach
D. 1. Reproduction isown kind. 2. Each egg has.....yellow yolk. At first embryo.....of the egg. 3. Frogs lay their.....called metamorphosis. 4. They also layheat of the Sun. 5. The babyan adult.

HOTS Questions

1. According to the life cycle of grasshopper, a nymph comes out from eggs after some days. 2. No, birds sit on eggs to keep them warm.

4. Adaptations of Animals

- A.** 1. c 2. b 3. a 4. d 5. c
B. 1. T 2. F 3. F 4. T 5. F
C. 1. Tapeworm, Ringworm 2. Bear, Vulture 3. Fish, Turtle 4. Dodo, Dinosaur
D. 1. A polar.....environment outside. 2. Some animals.....summer aestivation. 3. They have wellto catch their prey. 4. Zebra..... from their enemies.

5. Extinct animals were unable to.....became extinct. Dodo and dinosaur. Some animals arenumbers only. Asiatic cheetah and walrus.

HOTS Questions

1. The thick hairy coat helps the polar bear to protect itself from the intense cold. 2. Chameleon, it changes its colour according to its surroundings. This is called camouflage.

Unit 3 : The Human Body

5. Food and Nutrition

- A.** 1. c 2. a 3. c 4. d 5. b
B. 1. F 2. T 3. F 4. T 5. F
C. 1. Potato, Bread 2. Pulses, Fish 3. Green vegetables, Fruits 4. Wheat flour, Vegetables
D. 1. Nutrients are theand fibres. 2. Carbohydrates are the get energy. 3. It is needed.....our body. 4. A diet.....balanced diet. 5. Boiling, pickling, salting, etc.

HOTS Questions

1. to eat energy giving foods.
2. Avoid eating fried and junk foods.

6. Our Teeth

- A.** 1. d 2. c 3. a 4. b 5. a
B. 1. F 2. T 3. F 4. T 5. F
C. 1. eight 2. four 3. eight 4. twelve
D. 1. 32, 16 in upper jaw and 16 in lower jaw. 2. Teeth are very important.....form for digestion. 3. Incisors : eight, canines : four, premolars : eight and molars : twelve. 4. The portion of tooth..... blood vessels and nerves. 5. Tongue have taste buds associated with different tastes

.....sour along our sides.
Our tongue helps
emotions.

HOTS Questions

1. Her teeth started decaying. I suggest her to eat a well-balanced diet, not to eat too much sweets or chocolates, to brush the teeth twice a day, to eat plenty of fresh fruits and vegetables. 2. Tooth decay. She should eat a well-balanced diet and avoid too much sweets and chocolates.

7. Microbes

A. 1. b 2. a 3. a 4. c 5. b
B. 1. T 2. F 3. T 4. T 5. F
C. 1. Typhoid, Tuberculosis 2. Polio, Common cold 3. Ringworm at athlete's foot, Mycetoma 4. Malaria, Sleeping sickness
D. 1. Bacteria are vital..... the environment. 2. Viruses cannotit multiplies. 3. Germs can enterby the microbes. 4. Food preservationits future use. 5. Refrigeration involves of microorganisms.

HOTS Questions

1. Growing Rhizobium bacteria. 2. Canning.

Unit-4 : Safety Rules

8. Safety and First Aid

A. 1. c 2. b 3. a 4. a 5. d
B. 1. T 2. F 3. T 4. F 5. T
C. 1. Iron, Heater 2. Dettol, Savlon 3. Ibuprofen, Acetaminophen 4. Fracture, Sprain
D. 1. Never touch an electrical switches 2. Gas stoveany electric point. 3.

The first orcalled first aid. 4. When there is a crackcalled sprain. 5. Antiseptic lotion.....pair of scissors.

HOTS Questions

1. She should immediately turned off the gas stove, open all windows and doors to let the gas out. 2. Support the arm with the help of sling, apply ice and wrap up injured part with crepe bandage.

Unit-5 : Clothes, Weather, Water and Soil

9. Clothes

A. 1. c 2. d 3. a 4. b 5. a
B. 1. F 2. T 3. T 4. F 5. F
C. 1. Jacket, Gloves 2. Shirt, Skirt 3. Silk, Wool 4. Cotton, Jute
D. 1. We need clothes..... and germs. 2. From yarn wefabrics like cotton. 3. We wear darkit to escape. 4. In rainy season.....keep us dry. 5. Fibres obtainednatural fibres like cotton and jute. Fibres obtained from animals are called animal fibres like silk and wool.

HOTS Questions

1. Cotton clothes because they absorb sweat. 2. They should be dried properly under the Sun. The storage boxes should be sprayed with DDT. Naphthalene balls should be kept between the layers of woollen clothes.

10. Air, Water and Weather

A. 1. d 2. b 3. b 4. c 5. d
B. 1. T 2. T 3. F 4. F 5. T
C. 1. Summer, Winter 2. Cholera, Jaundice 3. Milk, Sugar 4. Sand,

Chalk

D. 1. Weather is affected around the Sun. 2. As the Earth experience winter. 3. At day timecalled land breeze. 4. Rain, dew, frost, fog, hailstone and snow. 5. Sedimentation-The process ofsedimentation. Decantation-The process of decantation. Filtration-The process of.....filtration.

HOTS Questions

1. Because water get evaporated due to the heat of the sun. 2. Water found in seas is saline (salty).

11. Soil

A. 1. a 2. c 3. d 4. c 5. d

B. 1. F 2. F 3. T 4. T 5. F

C. 1. Topsoil, Subsoil 2. Alluvial soil, Red soil 3. Texture, Colour 4. Water, Wind

D. 1. The formation of..... called weathering. 2. Gravelgrowth of plants. 3. Alluvial soilcastor, etc. 4. Soil is easily.....called soil erosion. The factors.....loss to farmers. 5. Growing plantseroded by the wind.

HOTS Questions

1. Because desert soil is infertile. 2. Alluvial soil, because it is fertile and supports the growth of paddy.

Unit 6 : Our Universe

12. The Solar System

A. 1. d 2. c 3. a 4. b 5. c

B. 1. T 2. T 3. F 4. T 5. F

C. 1. Planets, Satellites 2. Mercury, Venus 3. Sputnik 1, INSAT-2B 4. Summer, Winter

D. 1. Sometimes we see.....

Orion, etc. 2. The Earth..... living things. 3. The Earth innermost layer of the Earth..... molten material. 4. Sputnik 1, Aryabhata, INSAT-2B, INSAT-3B, etc. The artificialexploration, etc. 5. The movement of Earth..... day and night.

HOTS Questions

1. Revolution of Earth. 2. Constellation.

Unit 7 : States of Matter

13. States of Matter

A. 1. a 2. a 3. d 4. b 5. d

B. 1. T 2. T 3. F 4. F 5. F

C. 1. Solid, Liquid 2. Matchstick, Petrol 3. Water, Sand 4. Chalk, Sand

D. 1. Although solids.....be broken. 2. There are some substances.....called sublimation. 3. Solution is a mixture.....called a solute. 4. The changes in which.....are called chemical changes. Burning of a paper, changing of curd into milk. 5. The changes in which.....are called physical change. Tearing of paper, melting of wax.

HOTS Questions

1. In wall, the molecules are tightly packed. In pillow, there is a little space between the molecules. 2. due to the pressure of water vapours.

14. Force, Work and Energy

A. 1. b 2. a 3. c 4. c 5. a

B. 1. F 2. T 3. T 4. T 5. F

C. 1. Muscular force, Mechanical force 2. Wind energy, Solar energy 3. Pulley, Inclined plane 4. (i) motor cycle (ii) tractor

D. 1. To stop asize of

objects. 2. An opposing forcewith a pen. 3. Any simple device.....a simple machine. Pulley and inclined plane. A motor cycle.....machines. 4. Because there is less friction between our feet and floor which help us to walk easily. On the other hand, there is much friction between our feet and sand land, so we can't walk easily. 5. Electrical energymechanical energy.

HOTS Questions

1. The gravitational force of Earth acts downwards and pulls the objects towards its centre. 2. Due to frictional force produced between smooth banana peel and the road.

Elevation in Life -5

Unit-1 : The Living World

1. The World of Plants

A. 1. a 2. b 3. c 4. a 5. d
B. 1. F 2. F 3. T 4. T 5. T
C. 1. Radicle, Plumule 2. Wind, Water 3. Wheat, Barley 4. Pulses, Cotton
D. 1. Different fruits many seeds. 2. Germination in growing conditions. For germination a young plant. 3. A plant produces produce new plants. 4. Many fruits..... and urena. 5. Plants can also be grown..... and leaves.

HOTS Questions

1. Because the germination of seeds need sufficient amount of water, air and sunlight. 2. She should grow wheat in the winter season.

2. The World of Animals

A. 1. d 2. b 3. a 4. b 5. c

B. 1. T 2. T 3. F 4. F 5. F

C. 1. trees 2. underground 3. crawling 4. spiders 5. migrate

D. 1. An animal's..... its habitat. 2. Camels can survive.....store food. 3. A whale does.....called blowholes. 4. Reptiles use various.....them to swim. 5. The regular movement migrate to survive.....to find food.

HOTS Questions

1. No, because whale needs salty water to survive which is available only seas and oceans. 2. Chameleon don't have teeth and they use their tongue to catch their prey.

Unit-2 : Human Body

3. Human Skeleton and Muscles

A. 1. c 2. b 3. d 4. a 5. c
B. 1. F 2. T 3. F 4. T 5. T
C. 1. joints 2. spine 3. femur 4. flexible 5. bundles
D. 1. The skeletal system you to move. 2. The skeleton heart and lungs. 3. The spine takes body to bend. 4. Hinge joint back twist and turn. 5. Smooth muscles arethink about them. Cardiac muscles are present circulated in the body.

HOTS Questions

1. No, because knee and shoulder are two different joints. 2. We cannot hold our body and allow movements of our body parts.

4. The Nervous System

A. 1. d 2. b 3. a 4. c 5. b
B. 1. F 2. T 3. F 4. T 5. F
C. 1. nervous 2. spinal cord 3. Medulla 4. voluntary 5. skull

D. 1. The peripheral nervous rest of the body. 2. The nerves that link or the spinal cord. 3. The brain keeps and imagine. 4. Cerebrum, cerebellum and medulla. 5. We must wash times a day. We must clean cotton bud.

HOTS Questions

1. Because all the movements of body parts are controlled by spinal cord. 2. She might had washed her eyes several times a day. She might had avoided watching so much television . She might had took diet rich in vitamins and proteins.

5.The Respiratory System

A. 1. a 2. d 3. c 4. b 5. a
B. 1. F 2. F 3. T 4. T 5. T
C. 1. expands 2. windpipe 3. molecular 4. Oxygen, gills 5. heartbeat
D. 1. The process of breathing called respiration. 2. The organs of blood vessels. 3. Respiration is the process expenditure of energy. 4. Aerobic respiration occurs in intermediate compounds. 5. Oxygen and carbon gases take place.

HOTS Questions

1. The dog died due to the absence of oxygen for breathing. 2. Industries are settled near seas and oceans.

6. Food and Health

A. 1. d 2. b 3. c 4. a 5. b
B. 1. T 2. T 3. F 4. F 5. T
C. 1. nutrients 2. beverages 3. Proteins 4. preservation 5.

Communicable

D. 1. To get energy to work and play, to grow and stay healthy. 2. The food giving foods. e.g., cereals potato, etc. Foods containing protective foods e.g., eggs, milk, etc. 3. Balanced diet and regular exercise 4. A communicable to another. A disease to another
5. Pasteurization tetanus, etc.

HOTS Questions

1. Eggs, milk, butter and vegetables.
2. No, because AIDS does not carried away by air.

Unit-3 : Safety Rules

7.Safety and First Aid

A. 1. d 2. a 3. b 4. a 5. d
B. 1. T 2. F 3. F 4. T 5. F
C. 1. accident 2. crushing 3. blisters 4. poison, nervous 5. Diarrhoea
D. 1. To prevent accidents on road, at home and in school. 2. Always walk safe place to cross. 3. Sometimes an sprain. A break called a fracture. 4. Put a lot of cool bandage or cloth. 5. Take a is ready.

HOTS Questions

1. Because her mother didn't tie splint around the affected part. She also didn't take him to the doctor. 2. As petrol is lighter than water, it floated on water and kept burning.

Unit 4 : The Universe

8. Universe

A. 1. a 2. c 3. b 4. b 5. a
B. 1. T 2. F 3. F 4. T 5. F
C. 1. Sun, Earth 2. Mercury, Venus

3. Spring tides, Neap tides 4. INSAT 2A, INSAT 2C

D. 1. Planets keep called orbits. 2. Sun is the star about $6,000^{\circ}$ C. 3. Earth is called on Earth. 4. When the Earth hidden from view. 5. The alternate called a tide. The strong tides spring tides. They occur to the Earth.

HOTS Questions

1. Solar eclipse. 2. to receive the signals from satellite to show the programs on TV screen.

Unit 5 : Things Around Us

9. Force and Energy

A. 1. b 2. d 3. a 4. b 5. c

B. 1. T 2. F 3. F 4. T 5. F

C. 1. Frictional 2. Energy 3. electrons, protons 4. fulcrum 5. wheel

D. 1. A pull or size of things. 2. Frictional force against the other. 3. Ability to do work. Kinetic energy potential energy in it. 4. Simple machines are screwdriver, etc. are simple machines. 5. A wedge is something heavy.

HOTS Questions

1. Because of much friction between his feet and the floor. 2. Lever

10 . Solid, Liquid and Gas

A. 1. c 2. b 3. c 4. a 5. d

B. 1. T 2. F 3. T 4. T 5. F

C. 1. Hydrogen, Oxygen 2. Water, Carbon dioxide 3. Salt, Table 4. Water, Petrol

D. 1. A chemical compound 1 atom of hydrogen. 2.

In liquids liquid flows. 3. In 212 B.C. by the object.

4. The object whose surface of water. 5. The change in shape physical change. The change in chemical chemical change.

HOTS Questions

1. The weight of water displaced is equal to the weight of box. 2. The weight of water displaced is less than the weight of cotton balls.

11. Magnet

A. 1. a 2. b 3. d 4. b 5. d

B. 1. F 2. T 3. F 4. F 5. T

C. 1. North pole, South pole 2. Iron, Nickel 3. Paper, Rubber 4. Bar shape, Ring shape

D. 1. Magnetic materials gold, etc. 2. Unlike poles in the middle. 3. Every piece neutral zone. 4. Take an iron core get magnetized. 5. Bar magnets the computer.

HOTS Questions

1. Magnetic force can pass through glass. 2. Each magnet has two poles at end and only two opposite poles attract each other.

12. Heat

A. 1. b 2. d 3. c 4. b 5. a

B. 1. F 2. T 3. F 4. F 5. T

C. 1. Fahrenheit, Kelvin 2. Conduction, Convection 3. Silver, Iron 4. Glass, Rubber

D. 1. Thermometer. Always use line of sight. 2. Liquids boil on starts boiling. 3. Conduction : The process conduction. Convection : The

transfer.....convection. (iii) Radiation : Radiation is..... vacuum. 4. Conductors : The materialscopper and steel. 5. The materials.....wood, etc.

HOTS Questions

1. Water changed into vapours and got evaporated. 2. Because heat transfers from hotter end (pan) to colder end (handle of the pan). The handle of the pan could be made of metal.

Unit 6 : Air, Water and Soil

13. Air, Water and Soil

A. 1. c 2. a 3. b 4. b 5. a

B. 1. F 2. T 3. F 4. F 5. T

C. 1. Nitrogen, Oxygen 2. Air occupies space, Air exerts pressure 3. Sedimentation, Evaporation 4. Sand, Gravel

D. 1. Air exists.....called atmosphere. 2. All human beingsin nature. 3. Air occupies..... pressure decreases. 4. Sedimentation called filtration. 5. Plants need soil.....cycle in nature.

HOTS Questions

1. Because air exerts pressure which could had progressively increased beyond the limit and balloon burst. 2. Yes, the balloon flattened in shape because air moved out and inflated the balloon.

14. Soil Erosion and Conservation

A. 1. c 2. a 3. c 4. d 5. a

B. 1. T 2. T 3. F 4. F 5. F

C. 1. Rain, Wind 2. A-horizon/ topsoil, B-horizon/Zone of accumulation 3. Water, Wind 4. Neem oil, Baking soda

D. 1. Weathering is.....form soil. 2. A-horizon : The uppermostbig pieces of rocks. 3. Waterwind and die. 4. Strips of grass.....by wind and water. 5. Insecticides, herbicidesmolecular techniques.

HOTS Questions

1. The roots of plant spreading in the pot held the soil firmly. 2. The top layer of soil could be exposed and started getting eroded by wind and water.

15. Rocks and Minerals

A. 1. b 2. b 3. c 4. c 5. b

B. 1. F 2. T 3. F 4. T 5. T

C. 1. Granite, Basalt 2. Sandstone, Limestone 3. Marble, Gneiss 4. Coal, Petroleum

D. 1. A mountain or hill Earth's crust. 2. Sedimentary rocks Earth's crust. Sandstones are the or by wind. Shales are loft to touch. 3. Its name came another. Marble really smooth. Gneiss texture is coarse. 4. Minerals from Lead-galena. 5. The word petroleum into petroleum.

HOTS Questions

1. Granite 2. Marble

Elevation in Life

(Teacher Manual)

Class-6 to 8



ELEVATION IN LIFE CLASS-6

1. Sources of Food

A. 1. c 2. a 3. c 4. b 5. d 6. c 7. a 8. a

B. 1. True 2. True 3. False 4. True 5. False 6. True 7. True 8. False

C. 1. We need food -----of our body; There are four-----our proper health. 2. because they are the primary source of food. 3. Roots: carrot and turnip, Stems: onion bulb and potato tuber, Leaves: spinach and cabbage, Flowers: cauliflower and broccoli, Fruits: apple and mango 4. We get meat from goat and fish, honey from honeybees, milk from cow and buffalo. 5. Products made from milk are called dairy products; curd, cheese, butter, etc. 6. Animals that-----herbivores; giraffe, cow and sheep. 7. Uttar Pradesh: Chapatti, Dal-----Bharta, etc.; Rajasthan: Choorma,-----Kadhi, etc.; Tamil Nadu: Rice-----Coconut chutney, etc.

HOTS Questions :

1. there is no life on earth as plants only produce life giving oxygen. 2. because milk is a rich source of calcium which helps in building bones strong and healthy.

2. Components of Food

A. 1. a 2. a 3. d 4. a 5. a 6. c 7. a 8. b

B. 1. True 2. False 3. False 4. False 5. True 6. True 7. False

C. 1. e 2. c 3. a 4. f 5. d 6. b

D. 1. Carbohydrate 2. Meat, eggs and pulses. 3. Carbohydrates, fats,

proteins, mineral salts, vitamins and water. 4. Basal Metabolic Rate 5. A diet that-----balanced diet. 6. a. proteins b. carbohydrates and fats c. vitamins and minerals d. fibres 7. Provide energy to our body. 8. It is effective-----canal properly.

HOTS Questions

1. Children need to have more proteins to grow well and build their body. 2. Labourer need to have more carbohydrates daily to get more energy.

3. Fibres-Our Cloth

A. 1. a 2. c 3. d 4. b 5. c 6. a 7. b 8. b

B. 1. cotton textile 2. plants 3. cover 4. synthetic 5. black 6. combing 7. Synthetic 8. Cotton

C. 1. Clothes protect us-----our body. 2. cotton and jute 3. Cotton plants grow-----for the plants. 4. We get wool from animals. 5. Synthetic fibres-----and chemicals. 6. Synthetic fibres are man-made fibres while natural fibres are obtained from plants and animals. 7. Cotton pad-----from cotton. 8. (a) Cotton is a -----cellulose. (b) Jute is a -----delta.

HOTS Questions

1. Cotton needs a soil with a high water holding capacity, aeration and good drainage as it cannot withstand excessive moisture and waterlogging. 2. because they are artificially manufactured in factories from wood pulp, crude oil

and chemicals.

4. The Nature of Matter

A. 1. c 2. a 3. b 4. c 5. a 6. d 7. b

B. 1. Copper wire 2. float 3. Kerosene 4. Water 5. molecule 6. Matter 7. magnet

C. 1. c 2. e 3. a 4. b 5. d

D. 1. The amount-----its mass. 2. Anything that-----called matter. 3. The some-----called classification. 4. In solids-----compressive forces. 5. Salt dissolves in water. 6. Kitchen utensils-----cook food. 7. Some materials-----or insulators. 8. An electric wire-----electric shock.

HOTS Questions

1. because of the action of air and moisture on them. 2. because plastics are bad conductors of electricity.

5. Changes Around Us

A. 1. c 2. a 3. b 4. b 5. c 6. c 7. a

B. 1. physical 2. hours 3. permanent 4. slow 5. Wax 6. acetylene 7. energy

C. 1. natural 2. physical 3. chemical 4. desirable 5. soluble 6. chemical

D. 1. The change-----slow change; rusting of iron and change of season. 2. The changes-----periodic change. 3. A change-----physical change. 4. When you grow---is a chemical change. 5. If wood or coal-----an undesirable change. 6. Germination of seed, formation of curd from milk, digestion of food, etc. are useful changes and rusting of iron, earthquakes, landslides, etc. are harmful changes.

7. Growth of a Plant: Slow-----periodic change. 8. Energy is

released in endothermic reaction while energy is absorbed in exothermic reaction.

HOTS Questions

1. No 2. Burning of paper is a irreversible and chemical change because we cannot get back paper from ash(irreversible change) and the composition and properties of paper are changed(chemical change).

6. Separation of Substances

A. 1. b 2. b 3. c 4. a 5. c 6. b 7. c

B. 1. winnowing 2. iron 3. Alum 4. Centrifugation 5. winnowing; handpicking 6. Evaporation 7. solute

C. 1. f 2. e 3. d 4. b 5. a 6. c

D. 1. A pure-----dissolve in water. 2. In heterogeneous mixture, constituents are not distributed uniformly and in homogeneous mixture, constituents are distributed uniformly. 3. The process-----winnowing; On a windy-----are formed. 4. A mixture of-----decantation. 5. In the laboratory-----called the filtrate. 6. In this method-----the liquid. 7. Iron filings: Roll-----of common salt. 8. A saturated-----dissolved; to increase-----in water.

HOTS Questions

1. sugar; because it can quickly dissolve in normal water. 2. by using sieve

7. Characteristics of Living Organisms

A. 1. a 2. b 3. b 4. b 5. a 6. c 7. b 8. c

B. 1. unicellular 2. photosynthesis 3. Food 4. animals 5. cell 6. multicellular organism

7. chlorophyll 8. excretion
 C. 1. b 2. c 3. d 4. a 5. f 6. e
 D. 1. excretion 2. The process of taking in oxygen and giving out carbon dioxide is called respiration. 3. (a) amoeba and yeast; (b) man and dog 4. due to the presence of green pigment called chlorophyll. 5. sexual and asexual 6. Adaptation is the----environment; A hawk-----
 -----find insects. 7. Living things grow, move, need food, respire, reproduce, etc. while non-living things do not. 8. The process of making food in the presence of sunlight is called photosynthesis.

HOTS Questions

1. No 2. Yes, because a rise in population results in increase in CO₂ level, climatic changes and environmental difficulties like loss in forest area along with wildlife varieties.

8. The Living Organisms and Their Surroundings

A. 1. b 2. d 3. a 4. c 5. b 6. d 7. b
 B. 1. c 2. e 3. f 4. a 5. b 6. d
 C. 1. habitats 2. adaptation 3. Roots 4. ecosystems 5. mesophytes 6. dryness; hot 7. arboreal 8. Hibernation
 D. 1. Habitat is a place where organisms live; comfort, safety, food water, air, shelter, etc. ; Habitat provides almost everything to an organism which is needed by it. 2. aquatic and terrestrial 3. The ability of-----called adaptation; they adapt special feature which help them to live in particular habitat. 4. Camel's body-----of the desert. 5. Roots in water plants-----decay under

water. 6. Adaptation is centered on an organism-----its surroundings. 7. Any habitat-----
 -----for most wildlife.

HOTS Questions

1. It only-----new surroundings.
 2. Polar bear cannot survive because his adaptation does not favor the desert conditions and he will die.

9. Plants-Forms and Functions

A. 1. c 2. b 3. b 4. c 5. a 6. a 7. c 8. a
 B. 1. mango 2. stem 3. carpel 4. Leaves 5. leaf blade 6. leaf 7. wheat
 8. stigma; style; ovary
 C. 1. c 2. e 3. d 4. a 5. f 6. b
 D. 1. root and shoot 2. Tap root-----
 ---each other. 3. banyan 4. Grapevine and cucurbita 5. The point of----- made by the leaves. 6. Male cell and-----develop into new plants. 7. Leaves are-----to trap insects. 8. Parts of a flower-----
 -seed after fertilization.

HOTS Questions

1. Leaves have become spiny to reduce the water loss. 2. to attract insects for pollination.

10. Animals-Forms And Functions

A. 1. a 2. a 3. d 4. a 5. c 6. d 7. c
 B. 1. Femur 2. lower jaw 3. ribs 4. Skull 5. radius ; ulna 6. Euglena 7. locomotion
 C. 1. f 2. d 3. e 4. b 5. c 6. a
 D. 1. cells 2. Different tissues-----
 --organs. 3. digestive system, respiratory system and circulatory system. 4. 206 5. (a) ball and socket joint. (b) ball and socket joint. 6. The bones of the-----long stretches. 7. The skull-----us to eat and drink. 8. The place where---

----simply a joint; ball and socket joints, hinge joints, gliding joints and pivot joints.

HOTS Questions

1. No 2. They have a streamlined body and covering of scales that help to overcome the resistance offered by water.

11. Measurement and Moving Things

- A. 1. b 2. b 3. c 4. a 5. d 6. b 7. c
B. 1. random motion 2. square metre 3. light year 4. rectilinear 5. temperature
6. Standard unit 7. small
C. 1. f 2. g 3. e 4. c 5. a 6. b 7. d
D. 1. measuring tape, metallic metre rod and scale. 2. kilogram (kg), metre (m) and second(s). 3. Any quantity-----same kind. 4. (a) random (b) periodic (c) periodic (d) mixed (e) vibratory 5. (a) rotation (b) rotation (c) revolution (d) rectilinear 6. A bullet fired-----in linear motion. 7. Translatory motion: In this motion-----same time; Rotatory motion: In this motion-----its position.

HOTS Questions

1. rest 2. 13 cm

12. Light, Shadow and Reflection

- A. 1. a 2. c 3. b 4. b 5. d 6. d
B. 1. man-made 2. parabolic 3. perpendicular 4. rectilinear propagation of light
5. beam 6. plane mirror 7. block
C. 1. b 2. f 3. a 4. e 5. c 6. d
D. 1. Two natural sources: sun and stars; Two artificial sources: candle and torch. 2. Some objects-----luminous body. 3. These materials-----some plastics; Materials

that-----plastic, etc.; Materials that-----rocks, etc. 4. Light travels in a straight line. This is known as rectilinear propagation of light. 5. A pinhole-----like a lens. 6. An opaque object-----of the object. 7. plane mirror and spherical mirror 8. When light-----by $\angle r$.

HOTS Questions

1. because their body blocks the light falling on him. 2. No, because reflection only occurs when light travels to the mirror and hits its surface.

13. Magnets and Magnetism

- A. 1. a 2. b 3. b 4. d 5. a 6. b 7. c
B. 1. true 2. false 3. false 4. true 5. true 6. false 7. true 8. true
C. 1. c 2. d 3. b 4. e 5. a
D. 1. Natural magnets-----lodestone; Artificial magnets-----bar magnet. 2. A magnetic-----the directions. 3. The substances-----iron. 4. Magnet has two poles; Magnet poles occur in pairs only. 5. Bring the south pole-----each other. 6. When we spread-----more strength. 7. The north pole-----south direction. 8. Do yourself.

HOTS Questions

1. because most of the magnetic strength of magnet acts near its pole. 2. because each molecule of a magnet has its north and south pole.

14. Electric Current and Electric Circuits

- A. 1. b 2. a 3. c 4. a 5. a 6. b 7. d
B. 1. fused bulb 2. Electric switch 3. insulators 4. closed 5. copper 6. battery 7. sunlight 8. two

C. 1. d 2. f 3. b 4. e 5. c 6. a

D. 1. When we-----electric circuit. 2. The materials-----are called conductors; graphite and carbon 3. The materials-----called insulators; plastic and rubber 4. positive and negative 5. Small spiral thin wire in an electric bulb is called filament. 6. Unscrew the ---- -----lights up. 7. Impure water 8. A dry cell-----inside it.

HOTS Questions

1. No, because cell is the basic unit used for producing electricity. 2. because in a socket there is a complete path of flow of electricity.

15. Water-A Natural Resource

A. 1. b 2. a 3. c 4. d 5. c 6. c 7. d

B. 1. solid ; liquid ; gas 2. water 3. 70 4. water table 5. Earth 6. Rain 7. Surface 8. waterlogging

C. 1. c 2. f 3. a 4. b 5. e 6. d

D. 1. Three states are ice(solid), water(liquid) and steam(gas). 2. water 3. Household use-----other purposes. 4. If it does not-----particular area. 5. Making use of rainwater is known as rainwater harvesting. 6. Water supports -----power stations. 7. (i) If it does not-----risk areas. (ii) When it rains-----excess water. 8. Water flows-----oceans is the water cycle.

HOTS Questions

1. because evaporation is faster when weather is windy. 2. Leafy vegetables are mostly composed of water. When they are cooked, water is released from them either in the form of steam or liquid.

16. Air Around Us

A. 1. d 2. c 3. a 4. b 5. b 6. d 7. a 8. c

B. 1. false 2. true 3. false 4. false 5. false 6. true 7. false

C. 1. c 2. d 3. b 4. a 5. f 6. e

D. 1. oxygen 2. Air is found-----breathing and combustion; It traps-----carries sound. 3. carbon dioxide 4. Stoma is a minute opening on the surface of leaf. 5. nitrogen-78%, oxygen-21%, carbon dioxide-0.03% and water vapour-variable 6. The process-----heat energy. 7. The earth-----called atmosphere. 8. Nitrogen is-----processes.

HOTS Questions

1. because it is closer to sea coast. 2. Water droplets are formed on the outside of a cup.

17. Dealing with Waste

A. 1. d 2. a 3. d 4. a 5. c 6. a 7. a

B. 1. true 2. true 3. true 4. true 5. true 6. true 7. false

C. 1. d 2. e 3. a 4. b 5. c

D. 1. biodegradable and non-biodegradable 2. Paper, glass, metal, plastic, etc. 3. A better-----same space. 4. Since biodegradable-----bacteria and fungi. 5. Recycling saves-----and so on; paper, plastic, glass, metal can be recycled and light bulbs, syringes, needles cannot be recycled. 6. Industries-----discharging them. 7. Biodegradable waste can be degraded and non-biodegradable cannot. 8. Reduce the consumption of plastic things, reuse plastic jars and bottles after washing them, recycle them to make new things.

HOTS Questions

1. Paper bags are recyclable but plastic coatings on papers make recycling difficult. When they are buried, paper bags becomes compost for the soil. But, it is harmful because it is made up of using trees and when recycled uses a lot of water. 2. Compost pit because it easily converts the waste into manure.

ELEVATION IN LIFE CLASS-7

1. How Do Plants Obtain Their Nutrition

- A. 1. a 2. c 3. c 4. b 5. a 6. d 7. b 8. c
B. 1. food 2. factories 3. photosynthesis 4. green plants 5. decomposed 6. saprophytes 7. Rhizobium 8. carnivorous plant
C. 1. c 2. d 3. e 4. b 5. f 6. a
D. 1. The process by-----called nutrition. 2. The process of ----- stored in plants. 3. chlorophyll 4. Animals and non-green-----are called heterotrophs. 5. Carbon dioxide 6. Receiving food from decomposed or decayed bodies is called saprophytic nutrition. Example of saprophyte is mushroom. 7. A mutual long-term-----is called symbiosis. Certain leguminous-----to the bacteria. 8. Carnivorous plants trap insects-----to digest them.

HOTS Questions

1. No, because he/she does not have chlorophyll. 2. because they obtain their food from photosynthesis.

2. How Do Animals Obtain Their Nutrition

- A. 1. b 2. b 3. a 4. c 5. c 6. c 7. a 8. c

B. 1. heterotrophic 2. cilia 3. Amoeba 4. ptyalin 5. cutting 6. Molars; Premolars 7. tongue 8. ruminants

C. 1. e 2. d 3. f 4. c 5. b 6. a

D. 1. Holozoic nutrition means taking solid food which may be a plant product or animal product. 2. Intracellular digestion 3. Organs involved in digestion: mouth, oesophagus, duodenum, stomach, small intestine and large intestine. 4. 32 5. Types of teeth: Temporary teeth or milk teeth and permanent teeth 6. mucous; The mucous----- kills germs. 7. The digestive system of a human is as follows:----- pushed into the oesophagus. In the oesophagus: The swallowed----- is called egestion. 8. All the animals who chew cud are called ruminants.

HOTS Questions

1. Digestion of food is completed in the small intestine. 2. because we have to break down the solid food to obtain nutrients for our body.

3. Fibres From Animals

- A. 1. b 2. a 3. a 4. b 5. b 6. c 7. b 8. c
B. 1. yarns 2. mulberry 3. Mulberry 4. used 5. shearing 6. shearer 7. rollers 8. Australia
C. 1. d 2. c 3. e 4. b 5. f 6. a
D. 1. Fibres obtained from plants and animals are called Natural fibres. 2. silk and wool 3. Wool; because it keeps us warm. 4. The process of shedding skin is called moulting. 5. sheep and goat 6. The process-----sericulture. 7. The wool fibres-----ropes of slivers. 8. Wool is marketed worldwide-----U.K (United Kingdom).

HOTS Questions

1. We dye the wool in various colours to make different coloured woolen clothes. 2. because in the summer season sheep can survive without their fur and before winters their fur comes again.

4. Heat Flow and Temperature

A. 1. d 2. c 3. b 4. b 5. a 6. b 7. a 8. a
B. 1. energy 2. Joule/°C 3. 4.184 4. Mercury 5. 0°C 6. mercury 7. radiant heat 8. 0°C; 100°C

C. 1. temperature 2. thermos flask 3. thermometer 4. Joule 5. glass

D. 1. Mercury 2. The degree-----called temperature. 3. The quantity-----heat capacity. 4. Conventional currents-----sea shores. 5. The quantity-----one calorie and 1 cal = 4.184J. 6. Radiation is the-----between them; The sun -----radiant heat. 7. Materials which conduct-----or insulators; because insulators do not draw heat and we can easily hold the handle of utensil in our hand. 8. Flask has a ---well fitted cork.

HOTS Questions

1. to make room for thermal expansion. If it is not done, the track may bend due to thermal expansion in summer and it may cause an accident. 2. Boiling is conversion of a liquid to gas while condensation is conversion of a gas to liquid. They both transfer from same two states and they occur at the same temperature.

5. Acids, Bases and Salts

A. 1. d 2. b 3. b 4. b 5. b 6. a 7. b 8. a
B. 1. bitter 2. Mineral 3. NaCl 4. Salt+Hydrogen 5. soapy 6. Sodium

bicarbonate

C. 1. c 2. f 3. a 4. g 5. h 6. d 7. b 8. e

D. 1. $\text{NaS} + \text{H}_2\text{O}$ 2. $\text{Ca}(\text{OH})_2 + \text{heat energy}$ 3. $\text{NaCl} + \text{H}_2\text{O}$ 4. $\text{KHSO}_4 + \text{H}_2\text{O}$ 5. $\text{BaSO}_4 + 2\text{NaCl}$ 6. $\text{Na}_2\text{SO}_4 + \text{Zn}(\text{OH})_2$ 7. $\text{Ca}(\text{OH})\text{Cl} + \text{H}_2\text{O}$

E. 1. A new substance formed in neutralization reaction is called salt. 2. sour 3. Litmus and Turmeric 4. A *pH scale* is a measure of how acidic or basic a substance is. 5. $\text{Ca}(\text{OH})_2$ is used in making-----fungicides. NaOH is used in -----chemicals. NH_4OH is used to-----clothes. 6. In this process-----glycerine.

HOTS Questions

1. because alkali is a soluble base but all bases are not soluble. So, all bases are not alkalies. 2. Pickles, jams and jellies have some acids which get reacted with metal and cause harm to health.

6. Changes Happening Around Us

A. 1. a 2. a 3. a 4. c 5. d 6. b

B. 1. exothermic reaction 2. CO_2 3. endothermic 4. oxygen 5. lime 6. physical change 7. oxygen; water 8. Crystallization

C. 1. The changes -----called physical changes. 2. The changes ---called chemical changes. 3. Condensation-----in water; Rusting-----egg. 4. endothermic, exothermic, irreversible, reversible, combination, etc. 5. (i) Hydrogen is -----reducing agent is H_2 . 6.

The reaction in-----precipitation reaction; Reaction of barium-----+ $2\text{HCl}(\text{aq})$. 7. If you leave-----rusting of iron; large

objects such-----
stainless steel.

- D. 1. Combination reaction 2. Neutralization reaction 3. Decomposition reaction 4. Displacement reaction

HOTS Questions

1. because no new substance is formed and if we evaporate water we get back salt. 2. because in coastal areas air is moist due to the presence of water vapour in air whereas in desert air is dry .

7. Soil

- A. 1. a 2. c 3. b 4. c 5. b 6. b 7. a
B. 1. breakdown 2. subsoil 3. groundwater 4. sandy 5. iron oxide 6. cotton; sugarcane 7. alluvium 8. Soil erosion

C. 1. c 2. a 3. b 4. e 5. f 6. g 7. d

D. 1. The breakdown-----
weathering of rocks. 2. water, air, wind and rain 3. bacteria and fungi 4. A-horizon, B-horizon and C-horizon 5. Gravel particles: 2.0 to 5.0 mm in diameter; Sand particles: 0.2 to 2.0 mm in diameter. 6. Percolation is the-----
in the soil. 7. planting trees, step farming, embankments, etc.

HOTS Questions

1. because they made tunnels which aerates the soil and also increase the fertility of soil. 2. The soil is sticky and leaves no space for air.

8. Respiration in Plants and Animals

- A. 1. c 2. d 3. d 4. b 5. a 6. a 7. a
B. 1. oxygen; carbon dioxide 2. carbon dioxide 3. haemoglobin 4. stomata 5. Amoeba 6. moist skin 7. gills

C. 1. c 2. a 3. d 4. b 5. f 6. e

D. 1. The process-----as
respiration; external and internal 2. Aerobic respiration takes place in the presence of oxygen while anaerobic respiration takes place in the absence of oxygen. 3. The rate of breathing increases with increase in exercise. 4. The various organs are nose, throat, trachea, bronchioles and lungs. 5. chest expands 6. stomata; lenticels 7. An earthworm respire through their moist skin. 8. Fishes breathe through gills.

HOTS Questions

1. Mucous secreted by the membrane present in nasal cavity warms and moistens the air and the hairs trap the dust and other particles present in the air. 2. The dust particles get trapped in the hair present in our nasal cavity. Then, they irritate the lining of the cavity as a result of which we sneeze.

9. Transport and Excretion

A. 1. c 2. c 3. b 4. b 5. a 6. a 7. a

B. 1. xylem; phloem 2. arteries; capillaries; veins 3. four 4. pulse 5. translocation 6. heartbeat 7. Urethra 8. ureter

C. 1. d 2. e 3. b 4. c 5. a

D. 1. xylem and phloem 2. The process of loss-----called transpiration; It helps-----
minerals; Plants starts-----
-increases. 3. red blood cells, white blood cells, platelets 4. Heart is the-----a bit to the left. 5. Four excretory organs: lungs, skin, large intestine and kidney. 6. The urinary system-----

passage for urine. 7. Each kidney---
-----called nephrons. 8. Dialysis is
the-----artificially.

HOTS Questions

1. Our body gets poisoned by toxins
which may lead to severe illness and
death. 2. because it removes water
and small amount of urea and salts.

10. Multiplication in Plants

A. 1. d 2. b 3. b 4. b 5. b 6. a 7. a
8. b

B. 1. true 2. false 3. true 4. true 5.
true 6. true 7. true 8. false

C. 1. f 2. d 3. e 4. a 5. b 6. c

D. 1. Asexual reproduction does not
require both parents while in sexual
reproduction both parents are
required. 2. Binary fission, Budding,
Spore formation, etc. 3. Natural- by
modified stems, by modified roots,
by modified leaves and Artificial-
cutting, grafting, layering, etc. 4.
The ability-----more vigour. 5. The
transfer-----as pollination. 6. The
fusion-----fertilisation. 7.
The scattering-----seed dispersal.
8. The seeds-----long
distances; The fruits-----parent
plant.

HOTS Questions

1. pollination occurs. 2. because it
increases genetic diversity and
cross-pollination plants are more
strong and vigorous than self-
pollination plants.

11. Motion and Time

A. 1. a 2. b 3. a 4. b 5. a 6. c 7. b

B. 1. true 2. false 3. true 4. false 5.
false 6. true 7. true

C. 1. c 2. a 3. b 4. e 5. f 6. d

D. 1. Motion is the-----to time. 2.
translatory motion, rotator motion,
oscillatory motion, etc.; by

comparing the distance covered by
them in given interval of time. 3. A
motion-----vibratory motion;
sewing machine needle 4. The
motion-----periodic motion; the
motion-----non-periodic
motion. 5. The speed of a -----
unit time; metre per second 6.
speed=25 km/hr; $750/108$ or 6.94
m/s 7. 4 hr 8. A simple pendulum----
-----time period.

HOTS Questions

1. They can be started and stopped
at will but ordinary watches can't.

2. For example, person sitting
inside a moving bus is at rest with
respect to the person sitting next to
him but he is in motion with respect
to the person outside the moving
bus.

12. Electric Current

A. 1. c 2. b 3. c 4. c 5. c 6. a 7. a 8. d

B. 1. two 2. Button 3. primary 4.
insulators 5. electricity 6.
cathode; anode 7. magnet 8.
electromagnetism

C. 1. b 2. c 3. e 4. d 5. a

D. 1. Primary cells and Secondary
cells are the two sources of
electricity. 2. switch 3. The current
so-----called induced
current. 4. A material-----
electric conductor; A material-----
----electric insulator. 5. Induction is
a -----in a wire. 6. The rate of
flow-----electric current. It
can be produced through
electrochemical cells. 7. Faraday
took-----electric current is in
the coil. 8. Do yourself.

HOTS Questions

1. The iron nail behaves like a small
magnet. 2. Bird's body has a high

resistance and to flow current through the bird, there must be a voltage across the bird's body which is possible when bird touches the wire and at the same time touches the ground or some object connected to the ground.

13. Winds, Storms and Cyclones

- A. 1. b 2. a 3. b 4. a 5. d 6. c 7. a 8. a
B. 1. land 2. Anemometer 3. hurricanes 4. Thunderstorms 5. atmospheric 6. anemometer 7. eye
C. 1. c 2. e 3. a 4. f 5. d 6. b
D. 1. Two types of winds: local and global. 2. Anemometer 3. Thunderstorm 4. A violent-----called storm; thunderstorm, tornado and cyclone. 5. A tornado-----centre. 6. Direction of the-----it blows; Wind Vane. 7. They form in early-----as a hurricane. It destroys the life and property and damage wide area around. 8. When the air-----during a storm.

HOTS Questions

1. because light travels faster than sound. 2. Water has high specific heat. So, it takes long time to get warm or cool.

14. Light

- A. 1. b 2. b 3. b 4. b 5. c 6. b
B. 1. refracted 2. angle of deviation 3. glass 4. same 5. spectrum 6. convex;concave 7. concave.
C. 1. When a ray-----refraction of light. 2. Law1: When a-----known as Snell's law. 3. dispersion; When sunlight is-----red to violet. 4. For formation of-----appears in the sky. 5. When the Newton's coloured disc is rotated at high speed, it appears white which proves that white light

consists of seven colours. 6. Convex lenses are thicker-----the edges while concave lenses are -----at the edges. 7. When the object is at infinity-----enlarged.

HOTS Questions

1. because light travels in a straight line. 2. because when you look in the rear-view, you can see "AMBULANCE" written correctly and pull yourself to the right side of the road to let it go.

15. Water

- A. 1. d 2. a 3. b 4. c 5. c 6. b 7. b 8. a
B. 1. solvent 2. Rain 3. 4.2 J/°/gm 4. solute 5. Solvent 6. rain 7. 0°C 8. 70%
C. 1. false 2. true 3. true 4. true 5. true 6. false 7. true 8. true
D. 1. c 2. e 3. g 4. h 5. a 6. b 7. d 8. f
E. 1. rain, snow, groundwater, surface water, etc. 2. Water exists in solid, liquid and gas. 3. Fertilizers cause an-----eutrophication of water bodies. 4. domestic sewage, industrial waste, agricultural waste, petroleum oil, etc. 5. 4°C 6. In reverse osmosis, salty water is allowed to pass through a semipermeable membrane. It allows water to pass but not the salts. 7. River water is pumped-----network of water pipes. 8. The circulation of water from-----called the water cycle.

HOTS Questions

1. because it dissolves more substances than any other solvent. 2. Impurities and salts present in water on earth are left behind during evaporation by the sun.

16. Forests

- A. 1. a 2. c 3. b 4. b 5. a 6. c
B. 1. temperature 2. medicines 3. Forests 4. groundwater 5. animals 6. photosynthesis
C. 1. b 2. a 3. f 4. e 5. c 6. d
D. 1. One-third 2. Neem and Tulsi 3. monkeys and bats 4. Forest fires-----near their house. 5. Carbon dioxide; Oxygen 6. The maintenance-----forest conservation. 7. Animals depend on-----live in trees. 8. Forests help-----simpler forms.

HOTS Questions

1. because forests provide many useful things used by men. They also regulate temperature, purify air, help rainfall, etc. 2. Forests prevent soil erosion.

17. Waste Management

- A. 1. c 2. a 3. a 4. b 5. a
B. 1. drainage 2. secondary 3. effluent 4. distribution system 5. tertiary treatment
C. 1. d 2. c 3. b 4. e 5. f 6. a
D. 1. false 2. false 3. false 4. true 5. true 6. true
E. 1. Four water-borne diseases: cholera, typhoid, diarrhea and jaundice. 2. Biodegradable can degrade with the passage of time while non-biodegradable cannot degrade. 3. Any material-----called a waste. 4. The collection of sewage through drainage pipes forms the sewer system; through this system waste is treated in sewage treatment plants and then released in nearby rivers or lakes. 5. The solid that-----and biogas. 6. Chlorine is required to kill the disease-causing organisms. 8. 1.

Primary Treatment: It is-----
--distribution system.

HOTS Questions

1. Eucalyptus trees absorb surplus waste water rapidly and release pure water vapours into the atmosphere. 2. The sewage is carried to nearby water bodies.

ELEVATION IN LIFE CLASS-8

1. Crop Production

- A. 1. b 2. d 3. d 4. a 5. c 6. d 7. b 8. a
B. 1. hybridization 2. Foot; mouth 3. kharif crops 4. kharif 5. cross 6. Weeding 7. Broadcasting
C. 1. b 2. e 3. d 4. a 5. c
D. 1. seed drill 2. The cross-----hybridization. 3. wheat and gram; bajra and maize 4. combine; thresher 5. Rearing of honeybees-----apiculture. 6. feeding, shelter, health and breeding domestic animals 7. The process of-----irrigation; furrow irrigation, basin irrigation and sprinkler irrigation 8. The hybrid --- -----both parents.

HOTS Questions

1. using pesticides 2. agriculture is the new source of flood.

2. Micro-organisms

- A. 1. c 2. d 3. b 4. d 5. a 6. b 7. a
B. 1. four 2. bacteria 3. Yeast 4. Algae 5. microscope 6. bacteriophage 7. mould 8. penicillin notation
C. 1. d 2. c 3. e 4. a 5. b
D. 1. Some of the-----anaerobic bacteria. 2. Bacteria Staphylococci-----the food. 3. Yeast is-----produce vinegar. 4. Amanita-----to eat. 5. The

virus-----Mosaic Virus(TMV). 6. both asexually and sexually 7. Making of curd-----aroma and flavor; Bacteria cause----- Anthrax in animals. 8. Bacteria----- Virus; according to their habitat, occurrence, growth, size and shape, nutrition, reproduction, etc.

HOTS Questions

1. character that make-----to stimuli. 2. protozoa form-----reproduction, etc.; several protozoa-----human beings.

3. Synthetic Fibres and Plastics

A. 1. a 2. c 3. b 4. d 5. b 6. d

B. 1. true 2. false 3. true 4. true 5. false 6. false 7. true

C. 1. cotton and jute; nylon and rayon 2. The process-----polymerization. 3. Polyvinyl chloride 4. Plastics are-----and electricity. 5. Thermosetting-----only once. 6. It is obtained-----polythylene($\text{CH}_2\text{-CH}_2$)_n. 7. They do not-----moulds; They are not-----air either.

HOTS Questions

1. because they do not absorb sweat. 2. because they are not biodegradable.

4. Metals And Non-Metals

A. 1. c 2. b 3. d 4. b 5. b 6. c 7. b 8. c

B. 1. good 2. solid; mercury 3. Diamond 4. low 5. 24 6. water

C. 1. c 2. e 3. a 4. g 5. d 6. b 7. f

D. 1. Hydrogen 2. Nitrogen 3. Nickel and Chromium 4. The noble metals-----are noble metals. 5. Corrosion of metals-----with zinc. 6. Corrosion is the-----other chemicals; By using-----with zinc.

HOTS Questions

1. Due to strong -----cut by knife. 2. Metals donate electrons to hydrogen ion and reduce it to hydrogen gas while Non-metals does not have tendency to donate electrons.

5. Combustion and Fuels

A. 1. c 2. a 3. c 4. c 5. b 6. b 7. c 8. c

B. 1. Anthracite 2. innermost 3. popping 4. solid; liquid; gas 5. Water gas 6. Anthracite 7. zones 8. ignition temperature .

C. 1. true 2. false 3. false 4. true 5. true 6. false 7. true 8. false

D. 1. b 2. d 3. a 4. c 5. f 6. e

E. 1. ethyl mercaptan 2. fuel, oxygen and heat 3. hydrocarbons 4. Natural gas is a very-----called hydrocarbons. Biogas is a-----domestic sewage and Coal gas : when coal or wood-----is formed. 5. A fuel-----ignition temperature. 6. Coal is a solid material which is used as fuel to produce energy and heat. 7. Combustion is mainly-----sustain life process. 8. Flame is a --- -----takes place; A flame has----- -----around 180°C.

HOTS Questions

1. because the ignition temperature is lower than the room temperature. 2. It is used for----- --without smoke.

6. Conservation

A. 1. a 2. d 3. b 4. b 5. b 6. c 7. c 8. c

B. 1. Sanctuary 2. Uttarakhand 3. plants ; animals ; micro-organisms 4. animals 5. Gir ; Gujarat 6. deforestation 7. vulnerable 8. 1972

C. 1. d 2. e 3. a 4. c 5. b

D. 1. United Nations-----Natural

Resources(IUCN) 2. crocodile and blue whale 3. Bandipur-----Uttarakhand (Tiger) 4. To preserve-----to come. 5. a list of plants growing in protected areas 6. Sanctuary-----for protection; Kaziranga Sanctury and Sultanpur Bird Santuary 7. Several species-----animal products; these species-----to operate; these species-----in the world.

HOTS Questions

1. it affects plants ,animals and human life i.e., they all die. 2. because our life is directly or indirectly depend on them; as they are part of food chain.

7. The Cell

A. 1. c 2. b 3. b 4. b 5. b 6. b 7. c
 B. 1. suicidal bugs of a cell 2. Mitochondria 3. cell membrane ; cytoplasm ; nucleus
 4. cytoplasm 5. nucleus 6. micrometers 7. nucleoplasm 8. Chromosomes .
 C. 1. b 2. e 3. d 4. f 5. g 6. c 7. a
 D.1. Robert Hooke 2. mitochondria, endoplasmic reticulum, ribosome 3. chromosome 4. All living-----called cells. 5. A dense fluid-----nucleoplasm. 6. protects and provides the shape to the cell 7. produce energy-----of respiration. 8. It has a rigid-----plastids are absent.

HOTS Questions

1. produce energy during the process of respiration. 2. because all living organisms are made up of cells and cells perform all the functions needed for our survival.

8. Reproduction

A. 1. a 2. b 3. a 4. c 5. d 6. a 7. a
 B. 1. b 2. c 3. a 4. e 5. d
 C. 1. gametes 2. fraternal 3. ova 4. fertilization 5. sperms 6. Invitro fertilisation 7. zygote
 D. 1. amoeba and yeast 2. testis, vas deferens, epididymis, penis 3. ovaries, oviduct, uterus, vagina 4. the first cell of a new human being 5. The process-----called fertilization. 6. In this technique-----nine months. 7. Sometimes -----identical twins. 8. Ovaries-----from the uterus.

HOTS Questions

1. Immediately after -----baby is born. 2. because they are unicellular organism and in sexual reproduction both parents are required.

9. Force

A. 1. d 2. c 3. b 4. b 5. a
 B. 1. moving 2. accelerated 3. contact force 4. relative motion 5. mechanical 6. electrostatic 7. repulsion
 C. 1. Force is-----or pull; Newton 2. Newton 3. Force can-----it down; Force can-----moving object. 4. The force-----as contact force. 5. Magnet produces a force which pulls the nails towards itself. 6. muscular force 7. A process by which bodies are attracted towards the earth surface; more the weight of the body more it is attracted towards earth surface. 8. A balance-----on the scale.

HOTS Questions

1. it slows down and finally stops. 2. because of the gravitational force.

10. Friction

A. 1. c 2. a 3. b 4. a 5. a 6. b

B. 1. reducing 2. opposite 3. increasing 4. streamlined bodies 5. lubricants 6. motion 7. roughness 8. Static ; sliding ; rolling

C. 1. b 2. c 3. e 4. a 5. d

D. 1. Soiling friction ; burning friction 2. force of friction 3. friction 4. treading 5. greases

E. 1. it opposes the motion of an object ; on reversing the direction it also gets reversed 2. due to the force of friction 3. By using lubricants-----reduces friction. 4. in reducing friction, e.g., birds, cars-----friction with water. 5. because sandpapers make the surface of door rough as the rough surfaces have a better grip. 6. Friction can be-----reduce friction with water. 7. Friction has the-----our day to day activities. 8. Friction plays-----ladder inclined to a wall.

HOTS Questions

1. due to reduced friction between the banana skin and the street. 2. to reduce friction with water.

11. Pressure

A. 1. c 2. b 3. c 4. b 5. a 6. c 7. a

B. 1. Pressure 2. newton/metre² 3. increases 4. force ; area 5. force 6. huge pressure 7. liquid pressure 8. increases.

C. 1. false 2. false 3. true 4. true 5. true

D. 1. The force-----called pressure. 2. Newton/metre² 3. We can also-----at the same depth. 4. this decreases-----

becomes easier. 5. Animals-----given surface. 6. As the cutting-----given surface. 7. Heavy vehicles like -----is reduced. 8. At high-----air outside.

HOTS Questions

1. On higher altitude-----the air outside. 2. to increase surface area and reduce pressure on ground.

12. The Sound

A. 1. a 2. b 3. d 4. a 5. a 6. c 7. c 8. c

B. 1. c 2. b 3. a 4. d 5. e

C. 1. vacuum 2. shrillness 3. frequency of Oscillation 4. reflection 5. medium 6. hertz(Hz) 7. vibrating 8. Soft surface

D. 1. Loudness depends-----and fainter. 2. The movement-----an oscillation. 3. To and fro-----called vibrations. 4. The sound-----an echo. 5. Noise pollution-----spasmodic sounds. 6. The number of-----frequency of oscillation. 7. Amplitude-----Hertz (symbol Hz). 8. The outer ear-----quality of sound.

HOTS Questions

1. because the particles in air are further apart so they collide less often. 2. because echoes are produced when sound is reflected by a hard surface which is far away, this does not happen all the time.

13. Electricity

A. 1. c 2. c 3. b 4. b 5. a 6. c 7. c

B. 1. Gold or Silver 2. insulator 3. LED 4. acids; basis; salts 5. Electorplating; Electrorefining 6. Common salt 7. chemical

C. 1. does not conduct 2. bad 3. Addition 4. electroplating 5. good 6. Electrorefining 7. anode

D. 1. The process-----called electrolysis. 2. The two iron plates, connected to the positive and negative terminals of a battery, are called electrodes. 3. light emitting diode 4. No 5. Materials that-----conductors; Materials which-----insulators. 6. When electric current-----from the solution. 7. Electroplating is done-----'tin' cans. 8. Electroplating is an-----on the item.

HOTS Questions

1. because they need less current and it will glow even if the current flowing through the liquid is weak.
2. to prevent it from corrosion or rusting.

14. Rain, Thunder and Lightning

A. 1. d 2. b 3. a 4. a 5. b 6. c 7. b
B. 1. repel 2. negative 3. repulsion 4. attract 5. electricity 6. Atmospheric 7. conductor 8. negative
C. 1. c 2. a 3. d 4. b 5. e
D. 1. A good lightning-----inside the earth. 2. Charge produced on body is either positive or negative. 3. Lightning is a-----called thunder. 4. Benjamin Franklin 5. Normally, air-----is called lightning. 6. Due to the-----or negative. 7. This is done by-----by lightning. 8. Take an ebonite rod-----on the ebonite rod.

HOTS Questions

1. charges get transferred to the

uncharged body. 2. Thunder and lightning-----called thunder.

15. Light

A. 1. a 2. c 3. a 4. a 5. c 6. a 7. b
B. 1. sun 2. translucent 3. incidence 4. normal 5. reflections 6. myopia 7. spectrum 8. 25
C. 1. The phenomenon-----reflection of light. 2. oil and fog 3. opaque object 4. angle of incidence is equal to angle of reflection 5. The reflection of-----in the same plane. 6. In the image-----called lateral inversion. 7. To enable blind-----as the Braille system. 8. The part of the eye-----form an image.

HOTS Questions

1. because it works on the principle of convex mirror. 2. because the image formed is erect and of same size as the object.

16. Our Universe

A. 1. a 2. c 3. c 4. d 5. c 6. b 7. b 8. a
B. 1. celestial 2. galaxies 3. Polaris 4. hydrogen; helium 5. Mercury 6. moon 7. red 8. Neptune
C. 1. d 2. c 3. a 4. e 5. f 6. b
D. 1. A light-----one year. 2. A constellation-----recognizable figure. 3. Ursa Major contains-----Plough; Ursa Minor lies-----in the Ursa Major. 4. Sometimes some areas-----prominences. 5. Jupiter 6. Most of the-----atmosphere. 7. A man-made-----artificial satellite; Weather-----resources. 8. The sun-----meteors.

HOTS Questions

1. because it is visible after sunset and before dawn. 2. due to the presence of large water bodies.

17. Earthquakes

A. 1. b 2. c 3. c 4. c 5. a 6. c 7. c

B. 1. earthquake 2. volcanic 3. Richter scale 4. minute 5. seismograph 6. Seismic 7. geosphere 8. fault

C. 1. An earthquake-----earth's crust. 2. Seismograph 3. The magnitude-----Richter Scale. 4. Epicentre is the place on the surface directly above the focus. 5. The seismic waves-----tsunamis; These waves-----have touched. 6. Volcanic eruption-----as seismic zone. 7. Effect on building-----and bridges. 8. Buildings-----an earthquake.

HOTS Questions

1. Earthquakes can also-----of the earthquakes. 2. If I am inside, stand against a wall or if I am outside, stand in an open area away from anything that may fall.

18. Men's Intervention in Phenomena of Nature

A. 1. d 2. c 3. a 4. b 5. b 6. c 7. a

B. 1. soil ; floods 2. Wood 3. Petroleum 4. Deforestation 5. 30 6. renewable ; non-renewable 7. Paraffin wax 8. Coal

C. 1. c 2. d 3. b 4. e 5. f 6. a

D. 1. Coal, Petroleum, Charcoal 2. Its name-----rock oil. 3.

Forests; Petroleum 4. The slow-----carbonisation. 5. It is believed-----rock cap. 6. It is used-----and phenol. 7. Forests are-----soil erosion. 8. It leads to-----drastically.

HOTS Questions

1. It is used as a fuel-----and decay. 2. In the present-----black gold.

19. Pollution

A. 1. d 2. b 3. b 4. b 5. c 6. a

B. 1. Ash ; gases 2. sunlight 3. Oil spills 4. water pollution 5. noise pollution

6. Polluted 7. global warming 8. nervous system

C. 1. c 2. a 3. d 4. b 5. f 6. e

D. 1. The contamination of air, water and land by addition of unwanted and harmful substances. 2. chlorofluorocarbon (CFC) 3. greenhouse gas 4. Air pollution-----pesticides, etc. 5. sewage, oil spills, domestic wastes and industrial wastes. 6. Particulate air-----purify air; An oil spill----somewhere else. 7. Soil pollution-----degradation; The sound-----noise pollution 8. Damaged -----unfit for use; Noise pollution-----blood pressure.

HOTS Questions

1. The health-----photosynthesis. 2. Damaged or-----unfit for drinking.