

Attempt **all** questions

Question 1

Choose the correct answer to the questions from the given options.

[1]

(Do not copy the question. Write the correct answer only.)

- (i) Light always travels in a ----- line.
(a) Straight (b) Curved (c) Bend (d) none of these
- (ii) Which of these is a class 3 lever?
(a) Seesaw (b) Nutcracker (c) Ice tongs (d) knife
- (iii) A bottle opener is an example of which of the following simple machine?
(a) Class 1 lever (b) Class 2 Lever (c) Class 3 lever (d) Screw
- (iv) The outermost part of the flower that consists of green leaf like structure:
(a) Stamen (b) Sepal (c) Petals (d) Pistil

Question 2

(i) Name the following:

[2]

- (a) Example of vegetative reproduction by leaf.
- (b) The part of the flower that becomes the seed.
- (c) The energy is produced by movement or change in the position of an object.
- (d) The liquid part of the blood.
- (e) The energy source that can be used again and again.
- (f) The process by which seed become seedling or a young plant.
- (g) The instrument used by a doctor to listen to the heartbeat.
- (h) The largest artery.

(ii) Write true or false. Correct and rewrite the false statement.

[3]

- (a) A wedge has four inclined plane.
- (b) Mushrooms have seeds.
- (c) The stamen is the female reproductive part of a flower.
- (d) Work is done when we are standing at a bus stop.
- (e) Fulcrum is located between the load and the effort in second class lever.
- (f) The outermost part of a flower is made up of petals

(iii) Define the following:

[3]

- (a) Fertilization
- (b) Non renewable energy
- (c) Vegetative Reproduction

Question 3

(i) Fill in the blanks:

[2]

- (a) The capacity to do work is called -----.
- (b) The ----- is a good example of seed dispersal by water.
- (c) Fungi reproduce through -----.
- (d) The anther has yellow powder like substance called -----.
- (e) Peas and beans use the----- method of seed dispersal.
- (f) In a wheel barrow the load is between the effort and -----.
- (g) Deforestation leads to an increase in the level of ----- in the atmosphere.
- (h) All food chain starts with-----

(ii) Give reason for the following:

[5]

- (a) Ice tongs are the class three lever.
- (b) A boy reading a book while sitting on a bench in a park is not doing any work.
- (c) It is easier to push a heavy bag up a ramp than carrying it up a staircase.
- (d) Seed dispersal is important for plants.
- (e) Seed kept in a refrigerator do not germinate.

(iii) Choose the odd one from the following:

[1]

- (a) Dandelion, Maple, Cotton, Pea
- (b) Potato, Sugarcane, Banana, Carrot
- (c) Steering wheel, Ramp, Car, Screw
- (d) Papaya, Bitter gourd, Mustard, Cucumber

(iv) Give the functions of the following:

[1]

- (a) Sepal (b) Arteries (c) WBCs (d) Seed coat

Question 4

(i) (a) Give two examples of pulley.

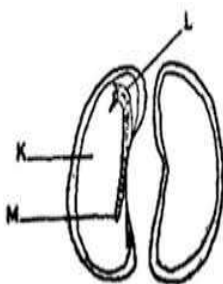
[3]

(b) Write the order in which fulcrum, load and effort are present in each of the three types of levers.

(c) What is food chain? Write one example.

(ii)

[1]



(a) Identify L and M?

(b) What is the function of K?

(iii) Amit and his friends are playing on a seesaw in the park. Amit notices that when one friend sits farther from the center, the seesaw moves more easily.

[2]

(a) What type of simple machine is a seesaw?

(b) What is the fulcrum in a seesaw?

(c) Can you name two other examples of this type of simple machine?

Question 5

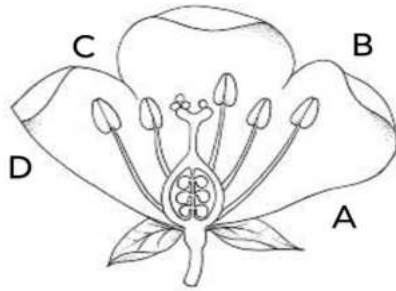
(i) Differentiate between the following:

[4]

- (a) Luminous and Non luminous object
- (b) Rotation and Revolution of the earth
- (c) Self pollination and Cross polination
- (d) Scavengers and Decomposers

(ii) The figure given below shows the L.S.of a flower.Study the same and answer the questions that follow:

[3]



- (a) Where are the pollengrains formed?
- (b) Identify the part labelled 'B' . How is it helpful to the plant?
- (c) What is the function of 'C'?
- (d) Label the part 'A' and describe its structure.

(iii) Rohan hears on the news that a solar eclipse will occur the next day. His teacher explains that it occurs when the moon blocks sunlight from reaching the earth.

[3]

- (a) Define eclipse.
- (b) What is the difference between a solar and a lunar eclipse?
- (c) Why should we never look at a solar eclipse directly?

Question 6

(i) A farmer notices that some plants in his field are propagating without seeds. His neighbour informs him that plants can also propagate from stems, roots, or leaves.

[2]

- (a) What is the process called when plants grow without seeds?
- (b) Name two plants that can be propagated from their stems.

(ii) In a village, farmers notice that when bees visit their farms,soon, their crops produce more fruits and vegetables.

[2]

- (a) How are bees important for plants?
- (b) What will happen if there are no bees in the environment?
- (c) How do plants help bees in return?

(iii) Study the pictures shown below and answer the questions that follow:

[2]



- (a) Identify the simple machines shown in the pictures.
- (b) How are they different?
