

EXERCISE Solution PLANTS: STRUCTURE AND FUNCTION

(1) GIVE EXAMPLES OF 3 PLANTS THAT HAVE:-

- a) Spiny fruits:- Custard apple, Jackfruit.*
- b) Spiny stem:- Cactus and aloe vera.*
- c) Red flowers:- Rose and Hibiscus.*
- d) Yellow flowers:- Sunflower and marigold.*
- e) Leaves which close at night:- Acacia and albizia.*
- f) Single seeded fruits:- Mango, Cherries.*
- g) many seeded fruits:- Apple, Watermelon*

(2.) OBSERVE ANY ONE FLOWER AND ITS VARIOUS PARTS AND DESCRIBE IT IN YOUR OWN WORDS:-

ANS:- *Flowers have a long or a short stalk called pedicel. One end of the pedicel is expanded and swollen. It is called the receptacle. Calyx, corolla, gynoecium, are different parts of a flower.*

CALYX:- *In the bud condition the petals are covered by leaf like parts called sepals that are green in colour. They form the calyx.*

COROLLA:- *This is made up of colourful parts called petals. Observe the shape, colour and smell of the corolla of various flowers like rose, hibiscous, tagar etc.*

ANDROECIUM:- *This is the male reproductive part of the flower. It consists of stamens. Each stamen is made up of another and filament.*

GYNOECIUM:- *This is the female reproductive part of the flower. This ios made up of carpels. A carpel consists of stigma, style, and ovary.*

Style:- *It connects stigma to ovary.*

Stigma:- *It acts as a receptacle for the pollen grains.*

Ovary:- *It is the enlarged basal part on which style lies.*

(3.) what are the similarities and differences between?

a) JOWAR AND MOONG:- *Jowar is a type of monocot plant and moong is a type of dicot plant. 2.Jowar has a fibrous root system and Moong has tap root system.*

b) ONION AND CORIANDER:- *1. Onion is a type of monocot plant and Coriander is a type of dicot plant.*

2. Onion is a type of vegetable and Coriander is a type of herb.

LEAVES OF BANANA AND MANGO:- *1. The leaves of banana are long in size and the leaves of mango are short bin size.*

2. Banana has a parallel venation and Mango has a reticulate venation.

d) COCONUT TREE AND JOWAR STALK PLANT:- *Leaves of coconut trees are arranged spirally and leaves of jowar stalk plants are arranged in opposite manner.*

The height of coconut tree upto 23 meters and the height of the jowar stalk plant upto 3 meter.

(4.) Explain the following images in your own words.

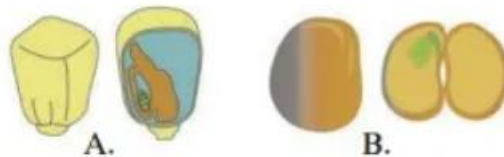


Image A represents a cross section of a seed. The seed consists of seed coat, and an embryo. A seed coat is hard in nature and embryo is thick and swollen.

And image B represents a monocot and a dicot seed.

(5.) DESCRIBE THE FUNCTIONS OF VARIOUS PARTS OF A PLANT.

ANS:- The different parts of a plants are-

1.) Calyx. 2.) Corolla. 3.) Androecium. 4.) Gynoecium.

CALYX:- *In the bud condition the petals are covered by leaf-like parts called sepals which are green in colour. They form the calyx.*

COROLLA:- *This is made up of colourful parts covered by leaf like parts called sepals. Observe the shape , colour and the smell of the corolla of various flowers like the rose, hibiscus, mogara, kankher, tagar etc.*

ANDROECIUM:- *This is the male reproductive part of a plant. It consists vof stamens. Each stamen is made up of another and filament.*

GYNOECIUM:- *This is the female reproductive part of a flower of a plant. This is made up of carpels. A carpel is consists of stigma, style, ovary.*

Style:- It connects stigma to ovary.

Stigma:- It acts as a receptacle for the pollen grains.

Ovary:- It is the enlarged basal part on which style lies.

(6.) Certain properties are mentioned below. Find a leaf corresponding to each property and describe those plants. leaves with smooth surface, leaves with rough surface, fleshy leaf, spines on leaf.

1.) LEAVES WITH SMOOTH SURFACE:- *The simple smooth edged leaves are 2 to 4 m long. The upper portion is green. E.g- Salix caroliniana.*

2.) LEAVES WITH ROUGH SURFACE:- *It is belonged to the category of shrubs. E.g- Asperiifolia.*

3.) FLESHY LEAF:- *Fleshy leaf are found in desert areas. Their leaves are green. Eg- opuntia.*

4.) SPINES ON LEAF:- *Many plants have spices on their leaves. E.g- Acacia, aloe vera*

Question 7:

Find the plant parts.

r	b	u	d	x	s	r	f
o	w	p	y	e	t	a	l
o	l	l	d	n	e	d	o
t	a	o	i	l	m	i	w
c	n	e	t	a	l	c	e
a	v	o	v	u	m	l	r
p	e	t	a	l	s	e	o
r	o	o	t	h	a	i	r

ANSWER:

r	b	u	d	x	s	r	f
o	w	p	y	e	t	a	l
o	l	l	d	n	e	d	o
t	a	o	i	l	m	i	w
c	n	e	t	a	l	c	e
a	v	o	v	u	m	l	r
p	e	t	a	l	s	e	o
r	o	o	t	h	a	i	r