Parts of Plants and their Structure

Solution 1:

S.No	A		B
(a)	root	3.	growing from radicle
(b)	part of stem between nodes	4.	internode
(c)	stem	2.	growing from plumule
(d)	bud	1.	stem grows in height

Solution 2:

1. Root hair (Root hair are hair-like fibres present at the tip of the root, whereas the node, internode and bud are found on the stem.)
2. Leaf apex (The leaf apex is the tip of the leaf, whereas the calyx, corolla and gynoecium are parts of a flower.)

Solution 3:

Root cap – Located at the tip of the root.
Root hair – Located at the tip of the root.
Stalk – Located at the joint where the flower is attached to the stem.
Veins – Located inside the leaf lamina on the midrib of leaves.
Thalamus – Located at the base of the flower.

Solution 4:

1. calyx : sepals

   corolla : petals

1. leaf apex : tip of the leaf

   leaf margin : edge of the leaf

Solution 5.a:
Difference between calyx and corolla:

S.N0	Calyx	Corolla
1.	The calyx is made up of sepals.	The corolla is made up of petals.
2.	It is generally green in colour.	It has a variety of colours and fragrances.
3.	It is the outermost whorl of a flower.	It is the second whorl of a flower between the calyx and gynoecium
4.	It protects the flower in the bud stage. It also protects the inner whorls of the flower in the later stages.	It attracts the insects with its colourful petals and fragrance. The insects bring about pollination in the flower.

Solution 5.b:

Differences between hibiscus leaf and peepul leaf:

S.N0	Hibiscus leaf	Peepul leaf
1.	There is a thin midrib in the centre of the lamina of the hibiscus leaf.	There is a thick midrib in the centre of the lamina of the peepul leaf.
2.	Small veins and veinlets arrange themselves parallel in the lamina giving a parallel venation.	Smaller veins and veinlets form a network in the lamina giving a reticulate venation.
3.	Leaf margin of hibiscus leaf is serrated.	Leaf margin of peepul leaf is plain.
4.	Leaf apex does not taper and is shorter.	Leaf apex is tapering and pointed.
5.	Hibiscus leaf has stipules.	Peepul leaf does not have stipules.

Solution 6:

1. Lateral roots, root hair, root tip and root cap
2. Node, internode, axillary and terminal buds and branches
3. Node
4. Leaf blade or lamina, leaf margin, leaf apex, mid-vein, veins, leaf base, stipule and petiole
5. Stipule
6. Stalk, thalamus, calyx, corolla, androecium and gynoecium
7. Calyx

Solution 7:

1. The edge of the leaf is called the **leaf margin**.
2. The **androecium** is made of stamens.
3. The flat part of a leaf is called the **lamina or leaf blade**.
4. The corolla is the **group of petals**.
5. The innermost whorl of the flower is the **gynoecium**.

Solution 8.a:
The parts of a plant are root, stem, leaf, flower and fruit.

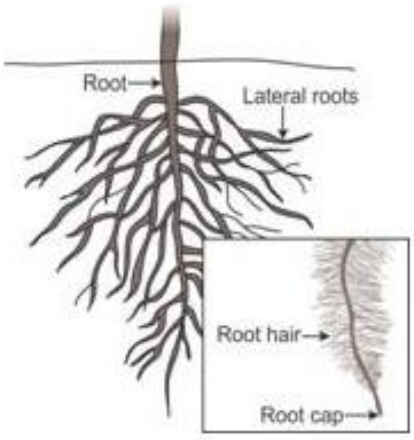
Solution 8.b:
Root hair are hair-like fibres present at the tip of the root.

Solution 8.c:
A bud is an undeveloped shoot. It is a projection on the stem, generally green in colour, from which a branch of the stem, a leaf or a flower develops. On a plant, the bud is found on the stem at two places:

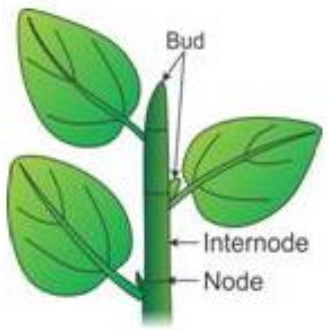
1. An apical bud is found at the apex of the stem and causes an increase in the height of the stem.
2. An axillary bud is found in the axil of the stem and may develop into a flower or a branch.

Solution 8.d:
The pointed tip of the leaf lamina is called the leaf apex or leaf tip.

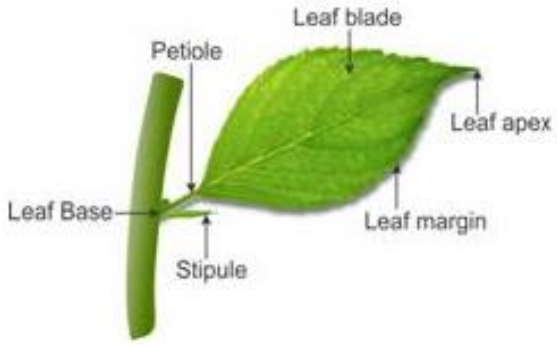
Solution 9.a:
Parts of the root:



Solution 9.b:
Parts of the stem:



Solution 9.c:
Parts of a leaf:



Solution 9.d:
Parts of a flower: