

## QUESTION BANK

### **Q1/ Define the following:**

Indeterminate growth, determinate growth, hapaxanthic shoot, pleoanthic shoot, monopodial stem, sympodial stem, Twigs, collateral buds, superposed buds, pseudoterminal bud, colleters, hastula, ligule, pulvinus, bractlet, chaff, glumes, phyllary, spathe, Phyllodes, tendrils, glochidium, Decomposed leaf, geminate-pinnate leaf, heteroblastic leaf, decurrent leaf, amplexicaul, flower, receptacle, tepals, hypanthium, stamen, carpel, perfect flower imperfect flower, hermaphroditic flower, monoecious plant dioecious plant, andromonoecious plant, gynomonoecious plant, trimonoecious plant, androdioecious plant, gynodioecious plant, trioecious plant, complete flower, incomplete flower.

### **Q2/ Mention the differences between each of the followings:**

Indeterminate and determinate growth, lycophylls, euphylls, hapaxanthic and pleoanthic shoot, monopodial and sympodial stem, collateral and superposed buds, vegetative and floral buds, lemma and palea, simple and compound leaf, pinnately and palmately leaf, geminate and bigeminate leaf, perfoliolate and connate-perfoliolate, androecium and gynoecium, stamen and carpel, perfect and imperfect flower, monoecious and dioecious plant, monoecious and andromonoecious plant, monoecious and gynomonoecious, monoecious and trimonoecious plant, monoecious and trioecious plant, dioecious and androdioecious plant, dioecious and gynodioecious, dioecious and trioecious plant, complete and incomplete flower, radial and biradial symmetry, Actinomorphic and Zygomorphic symmetry.

**Q3/ Fill the blanks with the correct words?**

1. A stalk that bears the androecium and gynoecium is termed ... **androgynophore** ..., e.g., Passifloraceae.
2. ... **Flower sex** ..... refers to the presence or absence of male and female parts within a flower.
3. If the perianth is relatively undifferentiated, or if its components intergrade in form, the individual leaf-like parts are termed ... **tepals** ..... .
4. If a leaf appears to extend down the stem from the point of attachment, as if fused to the stem, the leaf attachment is ..... **decurrent** .... (e.g., as in many Cupressaceae).
5. ... **heteroblasty** ..... is a condition in which the juvenile leaves are distinctly different in size or shape from the adult leaves.
6. For either compound or divided leaves of ferns, the first (largest) division of a leaf is termed a ... **pinna** ...; the ultimate divisions are termed ... **pinnules** ..... .
7. .... **Decomound** ..... is a general term for a leaf that is more than once compound.
8. .... **Receptacle** ..... is the tissue or region of a flower to which the other floral parts are attached.
9. ... **Biradial symmetry** ..... means having two (and only two) planes of symmetry.

**Q5/ Answer by true (T) or false (F) on the following sentences and correct the wrong one if present?**

1. A compound leaf is one bearing a single, continuous blade. **F Simple**
2. A bipinnately compound or bipinnate leaf is with three orders of axes, each of which is pinnate. **F two**
3. Unifoliolate leaf is interpreted as being derived by reduction of an ancestrally compound leaf. **T**

4. The perianth (also termed the perigonium) is the outermost, non-reproductive group of modified leaves of a flower. **T**
5. Centripetal flower maturation refers to developing from the centre toward the outside or periphery. **F Centrifugal.**
6. The pattern of division of a leaf into discrete components or segments is termed leaf type. **T**
7. A compound leaf consisting of only two leaflets is termed bigeminate. **F geminate**
8. If the leaf is sessile with the base of the blade completely surrounding the stem, it is termed amplexicaul. **F perfoliolate**
9. In most flowers the perianth is differentiated into two groups. **T**
10. Anthesis is the general time of flowering, the opening of flowers with parts available for pollination. **T**

**Q5/ Fill the blanks with correct words?**

Taxonomy is a major part of systematics that includes four components:

....., ....., ....., .....

**However**, ..... which are defined as groups of organisms.

**Plant** taxa can be identified in many ways, a ..... is perhaps the most utilized of identification devices, the most common is a

..... consists of a series of two contrasting statements.

..... Who invented binomial nomenclature in the mid-18th century. **There** are two major means of arriving at a classification of life,

..... is that based on overall similarities. In contrast, the type of classification which is based on evolutionary history known as

..... which has been called simply the study of biodiversity. .... A student of Aristotle and known as the

Father of Botany, he differentiated between ..... and

..... Inflorescence, In his ..... he classified and

described about 480 kinds of plants. **Dioscorides** was a Greek physician, his ....., involved a description of morphology and medicinal characters for 600 plant species. .... was the first person who recognized the perfecti and imperfecti, groups of plants. .... He classified the plant in to woody and herbaceous plants, and then classified them according to the type of fruits and seeds, from his results that the ..... are more important in the taxonomy. **An** English scientist, he published a book under the title *Historia Plantarum*, involved ..... plant species and dividing *Arborae* into ..... and ..... . **He** is the famous researcher in this field till now. He published about 180 books, the first one called ..... and second book called ..... this book involved the sexual system that based on the reproductive organs of the flowers. .... Stamens twenty or more, episealous and found in ..... and ..... , whereas ..... Stamens twenty

or more, attached to axis and found in ..... and ..... . **The** 14th, 15th, 16th, 17th, 18th, and 19th Class of Linnaeus were ....., ....., ....., ..... and ..... respectively. **A** cone, also called a ..... is a modified, determinate, reproductive shoot system. **A** ..... is the mature ovary of flowering plants. **Plant** ..... refers to the general form of a plant, while ..... refers to the general environment where the plant is growing. **A** ..... is a vine that is perennial and woody, **A** ..... is a short and woody only at the ..... and that seasonally bears new, non-woody, annual shoots above. **A** plant can be ..... occurring under water; or ..... having roots or stems anchored to the substrate under water and aerial shoots growing above water. .... Part of root function in greatly increasing the surface area available for water and mineral absorption. **The** apical meristem is covered on the outside by a ..... functioning both to protect the root apical meristem and to provide lubrication as the root grows into the soil. **Roots** of many (if not most) species of plants have an interesting symbiotic interaction with a species of fungus, known as ..... . **The** first root to develop in a vascular plant is the ..... of the embryo, it is known as the ..... . In addition, roots that arise from a non-root organ (stem or leaf) are ..... . Furthermore, roots that arise from other roots are called ..... . **If** the primary root becomes dominant, it is called a ..... . **Parasitic** plants have specialized roots called ..... that penetrate the tissues of a host plant. Some adventitious roots called ..... grow from the base of the stem and function to further support the plant. **Type** of roots that grow upwardly from soil to air that function to obtain additional oxygen was called ..... . Although, ..... are enlarged, horizontally spreading and often vertically thickened roots at the base of trees that aid in mechanical support.

..... defined as an immature shoot system. **The** first shoot of a seed plant develops from the ..... of the embryo. **The** point of attachment of a leaf to a stem is called the ..... . **Perennial** and some biennial herbs have underground stems, which are generally known as ..... and have different types which includes ....., ....., ....., ..... and ..... . **Type** of rootstocks may function as reproductive structures in vegetative (clonal) propagation such as ....., ....., ....., ....., ....., or ..... . **This** is a woody, trunk-like stem that is swollen basally, the swollen region functioning in storage e.g. .... and ..... In contrast, ..... which is a low, swollen, perennial storage stem (at or above-ground level), from which arise annual or non-persistent photosynthetic shoots e.g. ....., and ..... . **A** ..... is a sharp-pointed stem or shoot, while spine, is a sharp-pointed ..... or ....., also, prickle is a sharp-pointed ..... structure found anywhere on the plant. **A** very specialized type of shoot is the ....., a modified, reduced, non-elongating shoot apical meristem bearing leaf spines and are characteristic of the family ..... . **Some** stems are specialized for reproduction. For example, a ..... is a naked (lacking vegetative leaves) peduncle (inflorescence axis), generally arising from a basal rosette of vegetative leaves and functioning to elevate ..... well above the ground. A culm refers to the flowering and fruiting stem(s) of ..... and ..... . A ..... is the general term for a proliferative grass shoot, typically growing in masses from ..... at the base of the stem. A pseudobulb is a short, erect, aerial storage or propagative stem of certain epiphytic ..... . A tendril is a long, slender, coiling branch, adapted for .....

