

BOT/VI/CC/19
BOTANY (CBCS) 2020
6th semester : Paper- 10

(ANGIOSPERM TAXONOMY, ANATOMY, EMBRYOLOGY)

UNIT-I

MULTIPLE CHOICE QUESTIONS:

1. Which of the following Botanists proposed numerical values for classification of plants?
 - a) R.R. Sokal
 - b) P.H.A. Sneath
 - c) Michel Adanson
 - d) A.J. Cole
2. The highest rank of plant classification is
 - a) Family
 - b) Order
 - c) Class
 - d) Division
3. Who is called the ' Father of taxonomy' ?
 - a) Theophrastus
 - b) Linnaeus
 - c) George Bentham
 - d) John Hutchinson
4. According to Bentham & Hooker, which family is the most primitive among the dicots?
 - a) Rosales
 - b) Malvales
 - c) Ranales
 - d) Parietales
5. John Hutchinson divided dicots into
 - a) Lignosae and Herbaceae
 - b) Polypetalae and Gamopetalae
 - c) Archichlamydae and Metachlamydae
 - d) None of the above

FILL IN THE BLANKS:

1. The presence of highly aromatic compounds is useful in the taxonomy of _____ family.
2. Engler and Prant follow a _____ system of classification.
3. According to Bentham & Hooker, _____ is the last family of monocots.

UNIT-II

MULTIPLE CHOICE QUESTIONS:

1. ICBN was firstly proposed in
 - a) 1930
 - b) 1950
 - c) 1940
 - d) 1961
2. The year of publication of “Species Plantarum” is
 - a) 1853
 - b) 1753
 - c) 1857
 - d) 1786
3. The standard size of herbarium sheet is
 - a) 11.5” x 16.5”
 - b) 18.5” x 10.5”
 - c) 15.5” x 16.5”
 - d) 20.5” x 20.5”
4. Biggest Herbarium of India is
 - a) Royal Botanical Garden
 - b) Indian Botanical Garden
 - c) India Garden
 - d) Himalayan Herbarium
5. The earliest known fossils of angiosperms are approximately _____ years old

- a) 13,000
- b) 130,000
- c) 1.3 millions
- d) 130 millions

FILL IN THE BLANKS:

1. Angiosperms first appear in the fossil record in the _____ period.
2. The Largest Herbarium in the world is _____
3. The original type of specimen of a species has been indicated by the author is known as _____

UNIT-III

MULTIPLE CHOICE QUESTIONS:

1. *Curcuma longa* belongs to the family
 - a) Zingiberaceae
 - b) Liliaceae
 - c) Orchidaceae
 - d) Cyperaceae
2. Pollinium is found in the family
 - a) Euphorbiaceae
 - b) Orchidaceae
 - c) Zingiberaceae
 - d) Polygonaceae
3. Gynoecium in Liliaceae is
 - a) Monocarpellary
 - b) Bicarpellary

- c) Tricapellary
 - d) None of the above
4. If two petals of whorl have both ends above, two have both ends below and remaining one above and other end below the neighbouring petals, aestivation is called
- a) Imbricate
 - b) Valvate
 - c) Quincuncial
 - d) None of the above
5. Which is incorrect for the family Rutaceae ?
- a) Bracteate
 - b) Syncarpous
 - c) Pedicellate
 - d) Perigynous

FILL IN THE BLANKS

1. Name of the family having six tepals, in two whorls is _____ .
2. The individual unit of perianth is _____ .
3. Vexillary aestivation is found in the family _____ .

UNIT-IV

MULTIPLE CHOICE QUESTIONS:

1. In hydrophytes stomata are completely absent in
 - (a) Submergent leaves
 - (b) Floating leaves
 - (c) Emergent leaves
 - (d) All of the above

2. During secondary growth in roots, meristem develop in stellar region is called
 - (a) Fascicular cambium
 - (b) Cork cambium
 - (c) Phellogen
 - (d) Periderm

3. Phloem is an example of
 - (a) Simple tissue
 - (b) Complex tissue
 - (c) Vascular tissue
 - (d) Permanent tissue

4. Transition of exarch bundles of root to endarch bundles of stem occurs in
 - (a) Epicotyl
 - (b) Hypocotyl
 - (c) Apical bud
 - (d) Coleoptile

5. Which one of the following is a xerophytic plant in which the leaves have prominent water storage regions in their mesophyll and succulent structure ?
 - (a) *Aloe*
 - (b) *Nerium*
 - (c) *Pinus*
 - (c) All of the above

FILL IN THE BLANKS:

1. The meristematic tissue that developed between vascular bundles during secondary growth is called_____

2. Secondary growth is absent in _____ roots

3. Extra-stellar region is also called_____

UNIT-V

MULTIPLE CHOICE QUESTIONS:

1. Embryosac occurs in
 - (a) Embryo
 - (b) Ovule
 - (c) Axis part of embryo
 - (d) Endosperm

2. In typical embryosac, the nuclei are arranged as
 - (a) 3+2+3
 - (b) 3+3+2
 - (c) 2+3+3
 - (d) 2+4+2

3. Secondary nucleus is formed by -
 - (a) Antipodal cells
 - (b) Egg apparatus
 - (c) Synergids
 - (d) Two polar nuclei

4. Which type of the pollination brings genetically different types of pollen grains to the stigma?
 - (a) Cleistogamy
 - (b) Xenogamy
 - (c) Autogamy
 - (d) Geitonogamy

5. Which one is triploid ?
 - (a) Megaspore
 - (b) Embryo
 - (c) Endosperm
 - (d) Microspore

FILL IN THE BLANKS:

1. Fusion of two male gametes brought by a single pollen tube with two different cells of the same female gametophyte to form two different structure is called _____
2. Development of embryosac directly from cell of nucellus (2n) is called _____
3. Having more than one embryo is called _____

KEY ANSWERS:

UNIT – I

Multiple choice questions:

- Q. 1 (c) Michel Adanson
Q. 2 (d) Division
Q. 3 (b) Linnaeus
Q. 4 (c) Ranales
Q. 5 (a) Lignosae and Herbaceae

Fill in the blanks

1. Lamiaceae
2. Phylogenetic
3. Gramineae

UNIT - II

Multiple choice questions:

- Q. 1 (a) 1930
Q. 2 (c) 1857
Q. 3 (a) 11.5'' x 16.5''
Q. 4 (b) Indian Botanical Garden
Q. 5 (d) 130 millions

Fill in the blanks:

1. Cretaceous
2. Royal Botanical Garden,
at Kew in England
3. Holotype

UNIT - III

Multiple choice questions:

- Q. 1 (a) Zingiberaceae

- Q. 2 (b) Orchidaceae
Q. 3 (c) Tricarpellary
Q. 4 (c) Quincuncial
Q. 5 (d) Perigynous

Fill in the blanks:

1. Orchidaceae
2. Tepal
3. Fabaceae

UNIT - IV

Multiple choice questions:

- Q. 1 (a) Submergent leaves
Q. 2 (a) Fascicular cambium
Q. 3 (c) Vascular tissue
Q. 4 (b) Hypocotyl
Q. 5 (a) *Aloe*

Fill in the blanks:

1. Inter-fascicular cambium
2. Monocot
3. Phellogen or cork cambium

UNIT - V

Multiple choice questions:

- Q. 1 (c) Ovule
Q. 2 (a) 3+2+3
Q. 3 (d) Two polar nuclei
Q. 4 (b) Xenogamy
Q. 5 (c) Endosperm

Fill in the blanks:

1. Double fertilization
2. Apospory
3. Polyembryony