3 (Sem–3/CBCS) BOT HC 1

2024

BOTANY

(Honours Core)

Paper : BOT–HC–3016

(Morphology and Anatomy of Angiosperms)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following : 1×7=7

   (a) What is gynostemium ?

   (b) What is spikelet ?

   (c) The process of deposition of materials in the primary cell wall is called _____.
   (Fill in the blank)

   (d) Calcium carbonate deposits in plants are known as _____.
   (Fill in the blank)

   (e) Who put forward the apical cell theory ?

Contd.

(f) What are bulliform cells?

(g) What are tyloses?

2. Answer the following questions very shortly: 2×4=8

(a) What do you mean by secondary medullary rays?

(b) Differentiate between rhytidome and lenticels.

(c) What are ring porous and diffuse porous wood?

(d) What do you mean by Kranz anatomy?

3. Answer ***any three*** of the following questions: 5×3=15

(a) Mention the morphological adaptations met in xerophytes.

(b) What are growth rings and how are they formed?

(c) What are ergastic substances? Mention its basic types.

(d) Explain Korper-Kappe theory of root meristem.

(e) What are the special types of inflorescences? Give *one* example of each special type of inflorescence.

4. Answer ***any three*** of the following questions: 10×3=30

(a) What are meristems? Classify meristems according to their position in the plant body. Describe the structure and function of each kind.

(b) Discuss about the scope of plant anatomy in pharmacognosy.

(c) What is periderm? Mention different structures of periderm. Describe the development of periderm in plants with support of diagrams.

(d) Discuss the non-living inclusions produced as a result of metabolic activity of plant cells.

(e) Define inflorescence. Discuss about various types of racemose inflorescences found in angiosperms.

(f) Discuss the anatomy of monocot stem and how it differs from that of a dicot stem.
