

D 13794

(Pages : 2)

Name.....

Reg. No.....

**FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2016**

(CUCBCSS-UG)

Core Course—Botany

**BOT 1B 01—ANGIOSPERM ANATOMY**

Time : Three Hours

Maximum : 80 Marks

**Part A**

I. Answer *all* questions. One word/fill in the blanks. Each question carries 1 mark :

Fill in the blanks :

- 1 Cystoliths are made up of \_\_\_\_\_.
- 2 Concentric vascular bundles are \_\_\_\_\_ in shape.
- 3 Companion cells are the component of \_\_\_\_\_.
- 4 Classification of stomata is based on \_\_\_\_\_ cells.
- 5 The name of cambial part in periderm is \_\_\_\_\_.

Answer in a single word :

- 6 Give an example for trilacunar leaf gap.
- 7 Name a extra cell wall material.
- 8 Interfascicular cambium is developed from which type of cells.
- 9 Growth rings are otherwise known as.
- 10 Name a plant gum.

(10 × 1 = 10 marks)

**Part B**

II. Answer *all* questions. Short Answer Questions. Each question carries 2 marks :

- 11 Distinguish between Heartwood and Sapwood.
- 12 What are hydathodes ?
- 13 Bicollateral vascular bundles.
- 14 Raphides.
- 15 What are alkaloids ?
- 16 Structure and functions of sclerenchyma tissue.
- 17 Write notes on unilacunar leaf trace.
- 18 Distinguish between fusiform and ray initials.

Turn over

- 19 How are the vascular cambial ring is formed ?
- 20 What are aleurone grains ? Give an example.

(10 × 2 = 20 marks)

### Part C

III. Answer any *six* questions. Short Essay. Each question carries 5 marks :

- 21 Describe the structure and function of lenticels with diagram.
- 22 Explain the formation of periderm with diagram.
- 23 Describe with diagram the normal secondary growth in dicot root.
- 24 Give a summary of reserve food materials present in plants.
- 25 Write notes on different types of stomata with diagrams.
- 26 Explain the various theories on apical organization.
- 27 Describe the secretory tissues in plants.
- 28 Describe with diagram the structure of dicot leaf.

(6 × 5 = 30 marks)

### Part D

IV. Answer any *two* questions. Essay. Each question carries 10 marks :

- 29 Give an account of anomalous secondary growth in bignonia with suitable diagram.
- 30 Compare and contrast the structure of dicot and monocot stem with diagrams.
- 31 Write an essay regarding the various types of waste materials present in plants.

(2 × 10 = 20 marks)