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# FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

(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 (1 mark each).**

**Fill in the blanks :**

**1** _____ **is the opening seen in the vein end of leaves.**

**2 Cambium absent in** ———— vascular bundles.

**3 Growth rings are formed by the activity** of _____in the vascular bundles.

4 Companian cells are the part of —

5 Medullary rays are made up of _____type of cells.

6 Where is the position of phloem in amphivasal vascular bundles ?

7 Give an example of monocot stem with anomalous secondary thickening.

8 Where we find the stomata in dicot leaves ?

9 Which is the component present in aleurone grains ?

**10** Give an example for multilacunar leaf gap.

(10 x 1 = 10 marks)

### Part B

**II. Answer** *all* questions. Short answer questions (2 mark each).

11 What are the properties of cell wall ?

12 What is intussusseption ?

**13 Give a note on essential oils present in plants.**

**14 Explain Koppe-Kappe theory.**

**15 Define** laticifers.

**Turn over**

16 What are lysigenous ducts ?

17 Which are the different types of leaf traces ?

18 What are the functions of stomata ?

19 What are sclereids ?

20 Write notes on collenchyma.

(10 x 2 = 20 marks)

**Part C**

**III,** Answer any *six* questions. Short essay (5 marks each).

21 Give a summary of reserve food materials present in plant cells.

22 Write an account of classification of stomata according to Metcalfe and Chalk ? Draw the structure of different types of stomata.

23 Describe the anomalous secondary thickening in Bignonia with diagram.

24 Explain the periderm formation in plants with suitable diagram.

25 Describe with diagrams the structure of dicot root.

26 Which are the different types of waste materials present in plant cells ? Explain with diagrams.

27 How will you distinguish a primary wall from a secondary wall ? Explain.

28 Describe the structure of dicot leaf with diagram.

(6 5 = 30 marks)

**Part D**

IV. Answer any *two* questions. Essay.

29 Write an essay regarding the various types of secretary tissues present in plants

30 Describe with diagram the normal secondary thickening in dicot stem.

31 Explain with diagrams the various theories regarding the apical organisation of stem and roots of plants.

(2 x 10 20 marks)