



SECTION – D

Answer **any six**. (Short essay type questions. **Each** question carries a weightage of 2) :

19. How does a vascular bundle in the stems of dicots differ from that in monocots ?
20. Draw the transverse section of a young anther and label all the parts.
21. Write a note on hydathode.
22. Write about periderm formation in dicot stems.
23. Describe the activity of cambium in Bignonia.
24. List the characteristics of meristems.
25. Describe microsporogenesis.
26. How will you differentiate a stem and a root anatomically ? **(6×2=12)**

SECTION – E

Answer **any one**. (**Essay** type questions. **Each** question carries a weightage of 4) :

27. Describe the secondary growth in thickness in Dracaena stem.
28. With the help of diagrams describe the different types of ovules in Angiosperms.
29. Describe the structure and formation of Polygonum type of embryo sac. **(1×4=4)**



Reg. No. :

Name :

VI Semester B.Sc. Degree (CCSS – Reg./Supple./Improv.)

Examination, May 2014

CORE COURSE IN BOTANY/PLANT SCIENCE

6B12 BOT/PLS : Plant Form and Function – 1, Angiosperm Anatomy
and Reproductive Botany

Time : 3 Hours

Total Weightage : 30

Instruction : Draw diagrams *wherever necessary*.

SECTION – A

Answer **all**. (Questions in bunches of **four**. **Each** bunch carries a weightage of **one**) :

1. Choose the correct answer :

- i) Hanstein proposed

a) Apical cell theory	b) Tunica corpus theory
c) Histogen theory	d) Korper Kappe theory
- ii) Abnormal activity of normally formed cambium can be seen in

a) Bignonia	b) Boerhaavia
c) Cephalandra	d) Eupatorium
- iii) Seeds of which of the following shows ruminant endosperm ?

a) Pea	b) Wheat
c) Nutmeg	d) Coconut
- iv) The point of origin of integuments in an ovule is known as

a) Micropyle	b) Raphe
c) Hilum	d) Chalaza

2. State **true** or **false** :

- i) In Gymnosperms, the endosperm is formed before fertilization.
- ii) In cleavage polyembryony, embryos develop by the cleavage of functional megaspore.
- iii) Companion cells are living cells associated with sieve cells.
- iv) Entry of pollen tube into the embryo sac through the integuments is called mesogamy.

3. Fill in the blanks :

- i) The walls of cork cells are thickened by the deposition of _____
- ii) _____ type of anthers have only one anther lobe.
- iii) _____ are plant groups that do not possess mechanical tissues.
- iv) When xylem and phloem are arranged in the same radius, the bundle is called _____

4. Match the following :

A	B	C
i) Aerenchyma	Hypodermis	Petiole
ii) Salt gland	Pinus	Leaf
iii) Polyembryony	Eichhornia	Seed
iv) Collenchyma	Mangrove	Stem

5. Answer in **one** word or **one** sentence :

- i) Define apospory.
- ii) Name the components of phloem.
- iii) Where do you find the synergids ?
- iv) What type of vascular tissues are found in roots ?

(5×1=5)



SECTION – B

Answer **any four**. (Each question carries a weightage of 1) :

Differentiate the following :

6. Apical meristem and intercalary meristem.
7. Parenchyma and sclerenchyma.
8. Open vascular bundle and closed vascular bundle.
9. Tunica and corpus.
10. Leaf trace and leaf gap.
11. Stomata and hydathodes.

(4×1=4)

SECTION – C

Answer **any five**. (Short answer questions. Each question carries a weightage of 1) :

12. What do you understand from the term adventive embryony ?
13. What do you know about aleurone grains ?
14. What are companion cells ? In which plant group are they found ?
15. How does a schizogenous cavity form ?
16. Mention the specialities of bulliform cells.
17. What is meant by a unilacunar node ?
18. Why do you call the seeds of grams exalbuminous ? Give an example for albuminous seeds.

(5×1=5)