17. (a) Explain Stelar evolution.

Or

(b) Write the details of development of lenticel.

18. (a) Compare the characters of dicot and monocot leaves.

Or

(b) Write an essay on ontogeny of dicot leaf.

19. (a) Explain the development of mega gametophyte.

Or

(b) Describe the structure of megasporangium.

20. (a) Write an essay on specialization of seed leaf.

Or

(b) Detail the various types of polyembryony.

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Reg. No. : .....

Code No. : 6391 **Sub. Code : HBOM 12**

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2013.

First Semester

Botany

ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS

(For those who joined in July 2012 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL the questions.

Choose the correct answer :

1. Tanica-Corpus theory was put-forth by
   (a) Schmidt (b) Nageli
   (c) Hanstein (d) Mendel
2. The hard part of the wood is
   (a) Alburnam (b) Duramen
   (c) Tyloses (d) Spring Wood
3. The elongated, tapering cells of cambium are
   (a) Ray initial (b) Callus
   (c) Fusiform initial (d) Stone cells

4. Medullary bundles are occurs in

(a) Dracaena (b) Nyctanthes

(c) Bignonia (d) Bougainvillaea

5. Cystolith is made up of

(a) $CaCO_3$ (b) $Ca_3(PO_4)$

(c) $CaSO_4$ (d) $Ca(NO_3)_2$

6. The epidermal hairs that possess poisonous liquid and stiffness are

(a) peltate (b) stinging

(c) glandular (d) non-glandular

7. The pollen is protected from UV rays by

(a) Ubish bodies (b) Epidermis

(c) Tapetum (d) Tollenkitts

8. The pollen tube that enters the ovule through the micropyle is

(a) Isogamy (b) Porogamy

(c) Mesogamy (d) Chalazogamy

9. The finger-like outgrowths that helps the movement of food materials called

(a) synergids (b) callos plug

(c) haustoria (d) funiculus

10. Occurence of more than one embryo within a seed

(a) polyteny (b) polyploid

(c) coenocytic (d) polyembryony

PART B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Explain quiescent centre.

Or

(b) Explain Korper-Kappe theory.

12. (a) Explain the protoxylem and metaxylem.

Or

(b) Briefly explain the formation of periderm.

13. (a) Give a short account on nodal anatomy.

Or

(b) Write a short account on Krantz anatomy.

14. (a) Brief the structure and functions of tapetum.

Or

(b) Explain the types of self in compatibility.

15. (a) Write short notes on endosperm.

Or

(b) Brief about perisperm with diagram.

PART C — (5 × 8 = 40 marks)

Answer ALL the questions, choosing either (a) or (b).

16. (a) What is differentiation? How it is expressed in plants?

Or

(b) Explain the seasonal activity of cambium.