

S.Y.B.SC. SEM – III (CBCS - 2016 Course) : WINTER - 2018

SUBJECT: BOTANY: DEVELOPMENTAL BOTANY & EMBRYOLOGY

Day: Friday
Date: 26/10/2018

W-2018-0718

Time: 11.00 A.M. To 02.00 P.M.
Max. Marks: 60

N.B:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat labeled diagram **WHEREVER** necessary.
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- Q.1** Attempt **ANY TWO** of the following: **(12)**
- a) Describe primary structure of monocotyledon stem.
 - b) Explain in detail permanent tissues in the plants.
 - c) Comment on mechanical tissue in *Cycas* leaflet
- Q.2** Attempt **ANY TWO** of the following: **(12)**
- a) Explain anomalous secondary growth in *Bignonia*.
 - b) Give general characters of meristematic tissue and enlist its various theories.
 - c) Give structure of stomata and explain its mechanism of opening and closing.
- Q.3** Attempt **ANY TWO** of the following: **(12)**
- a) Write a note on shoot apical meristem.
 - b) What is trichome? Describe different types with an example.
 - c) What is anomalous secondary growth? Describe in brief its structure in *Dracaena* stem.
- Q.4** Attempt **ANY THREE** of the following: **(12)**
- a) Define embryology. Explain structure of tetrasporangiate embryo.
 - b) Give various types of ovule with suitable example.
 - c) Explain structure of typical 8-nuclear embryo sac in female gametophyte.
 - d) Comment on male gametophyte and give structure of pollen grain.
- Q.5** Attempt **ANY FOUR** of the following: **(12)**
- a) Explain tunica corpus theory
 - b) Explain in brief polyembryonic structure.
 - c) Give difference between monosporic and bisporic embryo sacs.
 - d) Write note on motar cells
 - e) Comment on tetrasporic embryo sac.
 - f) Give functions of epidermal tissue.

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