

This question paper contains 3 printed pages]

**R—84—2017**

**FACULTY OF SCIENCE**

**B.Sc. (Second Year) (Third Semester) EXAMINATION**

**MARCH/APRIL, 2017**

**BOTANY**

**Paper VII**

**(Histology, Anatomy and Embryology of Angiosperms)**

**(MCQ+Theory)**

**(Wednesday, 5-4-2017)**

**Time : 2.00 p.m. to 4.00 p.m.**

*Time—2 Hours*

*Maximum Marks—40*

*N.B. :— (i) Attempt All questions.*

*(ii) All questions carry equal marks.*

**(MCQs)**

**10**

1. (i) ..... is the outermost layer of root apex.
  - (a) Periblem
  - (b) Dermatogen
  - (c) Plerome
  - (d) All of these
- (ii) Apical cell theory was proposed by .....
  - (a) Nageli
  - (b) Hanstein
  - (c) Schmidt
  - (d) Schuepp
- (iii) ..... is the component of xylem.
  - (a) Sieve tube
  - (b) Companion cell
  - (c) Vessel
  - (d) None of these
- (iv) A group of parenchymatous cell that performs photosynthesis is .....
  - (a) Aerenchyma
  - (b) Chlorenchyma
  - (c) Stellate parenchyma
  - (d) Storage parenchyma

**P.T.O.**

- (v) In monocot stem the vascular bundles are .....
- (a) Collateral (b) Radial  
(c) Open (d) None of these
- (vi) The entry of pollen tube in the ovule through micropyle is .....
- (a) Chalazogamy (b) Mesogamy  
(c) Porogamy (d) All of these
- (vii) The inverted ovule is ..... type.
- (a) Anatropous  
(b) Cercinotropous  
(c) Campylotropous  
(d) Amphitropous
- (viii) The outer integument of the ovule develops into .....
- (a) Stalk (b) Testa  
(c) Seed pore (d) Seed scar
- (ix) The example of bisporic embryo development is evident in .....
- (a) Drussa (b) Plumbago  
(c) Allium (d) Penaea
- (x) The seeds without endosperm is .....
- (a) Endospermic (b) Non-endospermic  
(c) Perispermic (d) None of these

**(Theory)**

2. Define meristem. Write in detail classification of meristematic tissue. 10

Or

Write short notes on :

- (a) Xylem  
(b) Laticiferous tissue.

3. Explain in detail normal secondary growth in sunflower root. 10

*Or*

Write short notes on :

(a) Types of vascular bundle

(b) T.S. of Maize leaf.

4. Describe the development of male gametophyte. 10

*Or*

Write short notes on :

(a) Polygonum type of Embryo sac

(b) Nuclear endosperm.