

Total No. of Printed Pages—3

5 SEM TDC BOT M 1

2 0 1 8

(November)

BOTANY

(Major)

Course : 501

(Development and Reproduction of Angiosperm)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

1. (a) Answer the following as directed : $1 \times 5 = 5$

(i) In stem, xylem is referred to as
exarch / endarch / mesarch /
polyarch.

(Choose the correct answer)

(ii) _____ tissue contributes the most
to the mechanical strength of
plants.

(Fill in the blank)

(2)

(iii) Hydrophytes can float on water due to the presence of _____ cells.

(Fill in the blank)

(iv) Seed develops from ovary / ovule / embryo / embryo sac.

(Choose the correct answer)

(v) The female gametophyte of a typical dicot plant at the time of fertilization is _____ celled structure.

(Fill in the blank)

(b) Write precise notes on the following :

3×3=9

(i) Function of stomata

(ii) Apomixis

(iii) Haustorial structures

2. Write explanatory notes on either [(a) and (b)] or [(c) and (d)] :

5×2=10

(a) Tetrasporic type of embryo sac with examples

(b) Leaf gaps and leaf trace

(c) Fibres and tracheids

(d) Importance of palynology

3. What do you mean by secondary growth in thickness? With suitable sketches, describe the phenomenon in a dicotyledonous stem that you have studied. $2+2+8=12$

Or

Write on the following : $4 \times 3 = 12$

- (a) Tunica and corpus
 - (b) Heartwood and sapwood
 - (c) Structure and functions of periderm
4. What is microspore? Describe the formation of microspores within the microsporangium. Draw diagram where necessary. $2+8+2=12$

Or

What is endosperm? How is it formed in seeds of spermatophyte? Give examples with sketches. $2+6+4=12$
