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(March)

BOTANY

(Major)

Course : 501

(Development and Reproduction in 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) Dermatogen is tissue formed by apical meristem and it develops into xylem/pith/epidermis/cortex.

(Choose the correct answer)

(ii) Quiescent centre is present in root tip/shoot tip/flower tip/leaf tip.

(Choose the correct answer)

(iii) Periderm is formed from phellogen / vascular cambium / fascicular cambium / interfascicular cambium.

(Choose the correct answer)

(iv) The process of double fertilization (triple fusion) was discovered by _____.

(Fill in the blank)

(v) _____ nos. of pollen mother cells should undergo meiotic division to produce 64 pollen grains.

(Fill in the blank)

(b) Write short accounts of the following :

2+2+2+3=9

(i) Laticiferous tissues

(ii) Functions of stomata

(iii) Anatropous ovule

(iv) Parthenogenesis

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

5×2=10

(a) Tetrasporic type of embryo sac with example

(b) Types and function of parenchyma tissue

(c) Development of angiosperm seed

(d) Activity of cambium ring

3. What is secondary growth in thickness? With suitable sketches, describe the phenomenon in a dicotyledonous stem that you have studied.

2+2+8=12

(3)

Or

Compare between the following : $4 \times 3 = 12$

(a) Vascular cambium and Cork cambium

(b) Anatomy of dorsiventral leaf and Isobilateral leaf

(c) Anatomy of C_3 and C_4 plants

4. Differentiate between microsporogenesis and megasporogenesis. Trace the development of embryo after syngamy in a dicot plant. $4+8=12$

Or

What type of endosperm is found in wheat and rice? Describe various types of endosperm found in angiosperms. Outline the significance of endosperm. $2+7+3=12$
