The figures in the margin indicate full marks for the questions

SECTION—A
(Marks: 10)

Tick (√) the correct answer in the brackets provided:

1. In which of the following, coralloid roots are absent?
   (a) Cycas ( )
   (b) Gnetum ( )
   (c) Both (a) and (b) ( )
   (d) None of the above ( )

2. Winged pollen grain is found in
   (a) Cycas ( )
   (b) Gnetum ( )
   (c) Pinus ( )
   (d) All of the above ( )

3. Monadelphous stamen is found in the family
   (a) Rosaceae ( )
   (b) Rubiaceae ( )
   (c) Acanthaceae ( )
   (d) Malvaceae ( )

1 × 10 = 10
4. Spikelet inflorescence is the characteristic of the family
   (a) Acanthaceae ( )
   (b) Lamiaceae ( )
   (c) Asteraceae ( )
   (d) Poaceae ( )

5. Mesophyll cells are found in
   (a) leaf ( )
   (b) steam ( )
   (c) root ( )
   (d) All of the above ( )

6. In vascular bundle, cambium is a
   (a) meristematic tissue ( )
   (b) sclerenchyma ( )
   (c) parenchyma ( )
   (d) None of the above ( )

7. The process of double fertilization was discovered by
   (a) S. G. Nawaschin ( )
   (b) Hofmeister ( )
   (c) Strasburger ( )
   (d) P. Maheswari ( )

8. Female gametophyte of a typical dicot plant at the time of fertilization is
   (a) 8-celled ( )
   (b) 6-celled ( )
   (c) 7-celled ( )
   (d) 4-celled ( )

9. In jute, fibre is obtained from
   (a) phloem ( )
   (b) xylem ( )
   (c) pericycle ( )
   (d) medullary ray ( )

10. In coconut, edible oil is extracted from
    (a) epicarp ( )
    (b) mesocarp ( )
    (c) endocarp ( )
    (d) endosperm ( )
SECTION—B
(Marks : 15)

Write notes on the following in brief: 3×5=15

1. Nucellus
   OR
   Polyembryony in pinus

2. Verticillaster inflorescence
   OR
   Interpetiolar stipule

3. Radial vascular bundle
   OR
   Conjoint and collateral vascular bundle

4. Triple fusion in Angiosperms
   OR
   Microsporogenesis

5. Cereals-yielding plants
   OR
   Spices-yielding plants

(PART : B—DESCRIPTIVE)
(Marks : 50)

The figures in the margin indicate full marks for the questions
Answer five question, taking one from each Unit

Unit—I

1. Describe briefly with suitable diagrams, morphology and reproduction in Cycas. 10

2. Describe the reproduction of Gnetum in brief with the help of diagram. Why is Gnetum regarded as the most advanced amongst gymnosperms? 6+4=10
Unit—II

3. Describe the distinguishing characters of any two of the following families:

(a) Asteraceae
(b) Lamiaceae
(c) Cucurbitaceae

4. Write the distinguishing features of the family Poaceae. Mention at least five important members of this family with their scientific names.

Unit—III

5. Give an account of the female gametophyte with neat labelled diagram.

6. What is endosperm? Write an account on different types of endosperm development in Angiosperms.

Unit—IV

7. Describe the internal structure of monocot root with neat labelled diagram. Mention the anatomical difference between dicot root and monocot root.


Unit—V

9. Write notes on the following:

(a) Timber-yielding plants
(b) Fats and oils-yielding plants

10. Describe the economic importances of the following plants mentioning their scientific names and families:

(a) Rice
(b) Tea
(c) Lentil
(d) Jute
(e) Cardamom

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