

C 41465

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Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2013

(CCSS)

Complementary Course (Botany)

BO4 C04—MORPHOLOGY, SYSTEMATIC BOTANY, ECONOMIC BOTANY, PLANT BREEDING AND HORTICULTURE

Time : Three Hours

Maximum : 30 Weightage

I. Objective Type Questions (include multiple choice, fill in the blanks and answer in a single word) :

Answer *all* twelve questions.

Choose the correct answer.

1 Marginal placentation is seen in :

- (a) Malvaceae. (b) Fabaceae.
(c) Rubiaceae. (d) Euphorbiaceae.

2 Which of the following is not a mode of clonal propagation ?

- (a) Layering. (b) Budding.
(c) Hybridisation. (d) Selection.

3 A natural system of classification :

- (a) Linnaeus' system. (b) Bentham and Hooker's system.
(c) Hutchinson's system. (d) Engler and Prantl's system.

4 Family showing corona :

- (a) Malvaceae. (b) Papilionaceae.
(c) Rubiaceae. (d) Apocynaceae.

Fill in the blanks :

5 M.S. Swaminathan produced a mutant in wheat called _____.

6 Morphology of useful part in cotton is _____.

7 In pulses, the edible part is _____.

8 Artificial system of classification was introduced by _____.

Answer in a single word :

9 Increased vigour of F1 plants over their parents.

10 A group of plants obtained from a single vegetatively reproducing plant.

11 Name the fruit in Fabaceae.

12 Family in which monadelphous stamens are seen.

(12 × ¼ = 3 weightage)

Turn over

II. Short Answer Questions. Answer *all* nine questions :

- 13 Explain breeding for insect resistance.
- 14 Define rule of priority. Add a note on the limitations.
- 15 Important botanic gardens in India.
- 16 Cytotaxonomy and its use.
- 17 Define phyllotaxy. Mention the different types with examples.
- 18 Describe spike with an example.
- 19 Mention the binomial and morphology of useful part of Paddy and Gingelly.
- 20 Differentiate the types of flowers based on the position of ovary.
- 21 Distinguish between mass selection and pureline selection.

(9 × 1 = 9 weightage)

III. Short Essay or Paragraph Questions. Answer any *five* questions :

- 22 Author citation.
- 23 Give an account of the method of preparation of a herbarium.
- 24 Mention the binomial, family and morphology of useful parts of Beverage yielding plants.
- 25 What are the important floral characters of Caesalpineaceae.
- 26 Explain the different types of aestivations.
- 27 Give an account of the breeding for disease resistance.
- 28 Describe the floral features of Rubiaceae.

(5 × 2 = 10 weightage)

IV. Essay Questions. Answer any *two* questions :

- 29 Mention the principles and outline of Bentham and Hookers system of classification. Add a note its merits and demerits.
- 30 What is an inflorescence ? Describe the various types of cymose and special types of inflorescences.
- 31 Give an account of various methods of plant propagation. Add a note on their significance.

(2 × 4 = 8 weightage)