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Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Botany Degree Examination, November 2022

(Open Course)

BBT5D02– Applied Botany

(2019 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each question carries 2 marks: Ceiling: 20 marks)

1. Write the media composition of orchid cultivation.
2. What is spawn?
3. Name any two chemical insecticides used in vegetable cultivation.
4. What is the role of hormones in seed treatment?
5. What is the importance of liming during soil preparation?
6. Write any two advantages of biopesticides.
7. What do you mean by mixed fertilizer?
8. Write a note on any one method to break seed dormancy.
9. Write the binomials of Banana and Wheat.
10. Give the role of Neem cake in organic farming.
11. Write the names of two organic manures rich in potash and phosphorous.
12. Write any method to produce virus free plants.

SECTION B

(Answer all questions, each question carries 5 marks: Ceiling: 30 marks)

13. Briefly explain the method of vermicomposting.
14. Discuss the advantages of organic manure in crop cultivation.
15. Briefly explain the cultivation method of *Anthurium*.
16. Discuss the role of soil air on plant growth.
17. Write brief notes on potting, depotting and repotting.
18. Give an account on the different methods of irrigation.
19. Give a brief outline about micropropagation techniques.
20. Write the binomials family and morphology of useful parts of any two spice crops.

SECTION A

(Answer any one question, each question carries 10 marks: 1x10 = 10 Marks)

21. Explain various types of biofertilizers used in crop production.
22. Give an account of the various vegetative propagation methods in Horticulture.

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Botany Degree Examination, November 2022

BBT5B06 – Gymnosperms, Paleobotany, Phytogeography & Evolution

(2019 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each question carries 2 marks. Ceiling : 20 Marks)

1. Write a short note on Neo-Darwinism.
2. What are Protenoids?
3. Give the binomial of any two species of *Pinus* found in India.
4. What is Circum-austral distribution? How is it differing from *Circum-boreal* ?
5. Explain any one theory about the origin of earth.
6. What are compression fossils?
7. What are transfusion tissues? Where is it found?
8. Differentiate between manoxylic and pycnoxylic wood.
9. What are ovuliferous scales?
10. Explain age and area hypothesis
11. What is discontinuous distribution?
12. Give a short note on pseudofossils.

SECTION B

(Answer all questions, each question carries 5 marks. Ceiling :30 Marks)

13. Write a short note on *Williamsonia.*
14. Explain similarities and dissimilarities of *Cycas* with Pteridophytes.
15. Explain Genetic drift.
16. Give a note on the economic importance of Gymnosperms with suitable examples.
17. With the help of a neat diagram explain the internal structure of *Cycas* corolloid root.
18. What are the causes and consequences of glaciation?
19. Explain the theory of land bridges.

SECTION C

(Answer any ONE question, each question carries 10 marks. 1 x 10=10 Marks)

20. Give an account on the organisation of male and female inflorescence in *Gnetum*.

21. What is speciation? What are the different modes of speciation?

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Botany Degree Examination, November 2022

BBT5B09– Cell Biology & Biochemistry

(2019 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each questions carries 2 marks. Ceiling: 20 Marks)

1. Describe the structure of a prokaryotic cell.
2. What are secondary metabolites?
3. What is 'S' Phase of Cell cycle?
4. What are Amino acids?
5. What are the functions Endoplasmic reticulum?
6. What is glycosidic linkage?
7. Describe about the structure of Mitochondria.
8. What are Isoenzymes?
9. What are the major functions of Ribosomes?
10. What is a Nucleosome ?
11. Write about the functions of Carbohydrates.
12. What is peptide bond? Draw the structure.

SECTION B

(Answer all questions, each questions carries 5 marks. Ceiling: 30 Marks)

13. Write about the major stages of Eukaryotic cell cycles.
14. What is ATP and draw the structure of ATP.
15. Describe about the structure of chloroplast.
16. Explain the primary structure of proteins with help of a diagram.
17. Explain about the structural aberrations of chromosomes.
18. Describe about fluid mosaic model of cell membrane.
19. Differentiate between saturated and unsaturated fatty acids.

SECTION C

(Answer any one question, each question carries 10 marks. 1 x 10=10 Marks)

20. Explain about the structure and functions of proteins.
21. What are special types of chromosomes ? Differentiate between the structure of Polytene and Lampbrush chromosomes.

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Botany Degree Examination, November 2022

BBT5B08– Tissue Culture, Horticulture, Economic Botany & Ethnobotany

(2019 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each question carries 2 marks, Ceiling : 20 marks)

1. What is meant by dedifferentiation?
2. Define plasticity .
3. Explain the concept of totipotency
4. What are the components of a nutrient media?
5. State major applications of plant tissue culture.
6. What are the basic aspects of post harvest management of ornamental plants?
7. What are the different types of greenhouses?
8. Write a short note on the methods of seeding.
9. What are the common categories of pesticides?
10. What are the major steps involved for cultivating oyster mushrooms?
11. Write the botanical name, family and morphology of the useful part of Ragi.
12. Write a short note on *Trichopus*.

SECTION B

(Answer all questions, each question carries 5 marks, Ceiling : 30 marks)

13. What are the different stages of micropropagation, describe in brief?
14. Describe the sterilization methods adopted for aseptic conditions in tissue culture.
15. Explain the method for production of haploids through tissue culture.
16. Describe the various seed treatment methods practiced for promoting germination and protection against pathogens.
17. Explain the various methods of pest control.
18. Give an account on the botanical details of the medicinal plants you have studied.
19. Briefly describe the various tribes of South India.

SECTION C

(Answer any one question, each question carries 10 marks, 1 x 10 = 10 marks)

20. What is somatic hybridization and what are its applications?
21. Describe the principles of Bonsai making and the steps involved to make a bonsai.

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester B.Sc Botany Degree Examination, November 2022

BBT5B07 – Angiosperm Morphology & Systematics

(2019 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

(Answer all questions, each question carries 2 marks. Ceiling: 20 Marks)

1. Elucidate the limitations of common names.
2. What are the floral characters of Orchidaceae?
3. Differentiate between corymb and umbel inflorescences.
4. Explain the concept of genus.
5. Write an account on effective and valid publications.
6. What are the contributions of Robert Wight?
7. Describe the structure of dicot seed.
8. List out the salient features of Poaceae.
9. Distinguish between berry and drupe.
10. Enumerate the sources of taxomomic character.
11. Describe head inflorescence with examples.
12. Differentiate between syngenesious and synandrous stamens with examples.

SECTION B

(Answer all questions, each question carries 5 marks. Ceiling: 30 Marks)

13. Explain the merits and demerits of the rule of the priority.
14. What are the diagnostic features of the family Euphorbiaceae
15. Explain author citation and its significance
16. Write a note on the APG system of classification.
17. Give an account on Numerical taxonomy.
18. Explain the special types of inflorescences with examples.
19. What is placentation? Describe the various types with diagrams and examples.

SECTION C

(Answer any one question, each question carries 10 marks. 1 x 10 = 10 Marks)

20. Give an account on Bentham and Hooker's system of classification. What are the merits and demerits of this system?
21. Write an account on the taxonomic information resources.