

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester B.Sc Zoology Degree Examination, November 2023

BBT3C03 – Morphology, Systematic Botany, Economic Botany, Plant Breeding & Horticulture

(2022 Admission onwards)

Time: 2 hours

Max. Marks: 60

SECTION A

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

1. Compare the features of aggregate and multiple fruits. Cite examples.
2. Explain syngenesious stamen citing example.
3. Write a brief note on the significance of herbarium.
4. Write a brief note on the petals in Faboideae and Caesalpinioideae.
5. Describe the gynoeceum in Apocynaceae.
6. Describe the distinguishing floral features of Malvaceae.
7. Write the binomial and family of Tea and Coffee.
8. Write the binomial and morphology of the useful parts of Clove and Cotton.
9. What is intergeneric hybridization? Cite example.
10. What is Mass selection? Cite example
11. Write a note on layering.
12. Write a note on repotting. What is its significance?

SECTION B

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

13. What is aestivation. Write notes on the different types of aestivation citing examples.
14. What is Valid publication? Write the conditions in ICN on valid publication.
15. What is Chemotaxonomy? Discuss its role, citing examples in solving taxonomic problems.
16. Write notes on the salient floral features of Euphorbiaceae.
17. Write notes on two medicinal plants, citing their binomial, family and morphology of useful parts.
18. Write a note on breeding for disease resistance. Cite examples.
19. Write a note on different methods of grafting. Cite examples.

SECTION C

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

20. Write an essay on the concept 'Flower - as a modified shoot'. Discuss the evidences in support of this.
21. Write an essay on Bentham and Hooker's system of classification. Discuss its merits and demerits.

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BZL3B03 – Animal Diversity Chordata Part – I

(2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

Section A

I Short answer questions. Each question carries 2 marks

1. What are stem reptiles? Mention one example
2. Comment on the arboreal adaptations of Chamaeleon.
3. Write the scientific name of the following :-
i.) Rhacophorus ii) Purple frog iii) blind worm iv) Indian bull frog
4. What is urostyle?
5. Comment on the importance of Latimeria
6. Name any four subterranean fishes
7. Mention the importance of Neoceratodus
8. Discuss the special features of Chondrostei
9. What do you mean by chorda dorsalis?
10. What is atrium? Comment on its role
11. What do you mean by wheel organ? Mention its function.
12. Discuss the significant chordate features of ascidian tadpole (Ceiling: 20 marks)

Section B

II Paragraph questions. Each question carries 5 marks

13. Write brief note on non venomous snakes of Kerala.
14. With suitable diagram explain 8th and 9th vertebrae of frog
15. Write notes on distribution of lung fishes with suitable examples
16. Explain the features of Ammocoetes larva
17. Explain classification of pisces down to order with examples.
18. Comment on the conclusion of phylogeny of urochordata
19. With schematic diagram explain the life cycle Ascidia. (Ceiling: 30 marks)

Section C

III Essay questions. Answer any one question.

20. Describe the classification of Class Reptilia
21. Explain the salient features of sub phylum vertebrata (1x10 = 10 marks)

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BZL3C03 – Physiology and Ethology

(2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

Section A

I. Short answer questions. Each question carries 2 marks.

1. What is imprinting ?
2. What is habituation ?
3. What is circadian rhythm ?
4. Define osmoregulation ?
5. What is bradycardia?
6. What is sarcomere ?
7. Which blood group is considered to be universal donor ?
8. What is facilitated diffusion ?
9. What is uricotelism ? Give one example.
10. Give one example each for excitatory and inhibitory neuro transmitters.
11. What is asphyxia ?
12. Briefly describe significance of fasting

(Ceiling: 20 marks)

Section B

II. Paragraph questions. Each question carries 5 marks

13. Write a note on importance of fibres in diet
14. Briefly describe learned behaviours in animals
15. Draw a labelled diagram of neuromuscular Junction
16. Briefly describe hormonal regulation of urine production
17. Describe osmoregulatory adaptations of desert animals
18. Briefly describe transport of oxygen
19. Describe functions of blood

(Ceiling: 30 marks)

Section C

III. Essay questions. Answer any one question.

20. With the help of suitable diagram explain the structure, chemical composition & functions of plasma membrane.
21. Write an essay on the transmission of nerve impulses across an axon membrane.

(1 x 10 = 10 Marks)