

1B1N21020

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Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

**First Semester B.Sc Zoology Degree Examination, November 2021**

**BBT1C01 – Angiosperm Anatomy & Microtechnique**

(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 a promeristem?
2. Name two dehydrating agents.
3. What are bulliform cells?
4. What are astroscleroids?
5. Expand SEM and TEM.
6. What are companion cells?
7. What is bast?
8. What is calyptra?
9. What are hydathodes?
10. What is meant by Tunica – Corpus theory ?
11. What is resolving power of a microscope?
12. What are tyloses?

**SECTION B**

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

13. Write a note on simple tissues in plants.
14. Differentiate between killing and fixing in microtechnique
15. Differentiate between the structure of dicot and monocot roots.
16. What is a microtome? What is its significance of microtomy?
17. How are secretory tissues in plants classified?
18. How are vascular bundles classified?
19. Write a note on laticiferous tissues.

**SECTION C**

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

20. Write an essay on the complex tissues in plants, with suitable diagrams.
21. Explain the theories regarding the organization of root and shoot apex in plants.

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Degree Examination, November 2021

BCH1C01 – General Chemistry

(2019 Admission onwards)

Time: 2 hours

Max. Marks : 60

**Section A (Short answers)****(Answer questions up to 20 marks. Each question carries 2 marks)**

1. Explain Accuracy & Precision.
2. Define Equivalent mass of an acid and a base.
3. What do you mean by a Standard solution ? How can you prepare that ?
4. What are Quantum numbers? Give their significance.
5. What are the limitations of Bohr Atomic Model?
6. Explain the very high bond dissociation of  $N_2$  molecule on the basis of MOT.
7. What is Natural radioactivity?
8. Explain Group displacement law.
9. How is C-14 formed in the atmosphere. How does it decay ?
10. Briefly explain the term Photosynthesis.
11. What is Bohr's effect ?
12. Specify the two characteristics of a metalloenzyme.

**[Ceiling of marks: 20]****Section B (Paragraph)****(Answer questions up to 30 marks. Each question carries 5 marks)**

13. Explain the principle of double burette method used in titrimetry with a suitable example.
14. Explain the function of *complexometric indicators*.
15. What is Born-Haber cycle ? Give the Born-Haber cycle for sodium chloride.
16. Derive the de Broglie relation. Explain the significance of de Broglie equation.
17. Correlate N/P ratio and nuclear stability.
18. Write a short note on Nuclear forces.
19. Explain the mechanism of Sodium-Potassium pump.

**[Ceiling of marks: 30]****Section C (Essay)****(Answer any one. Each question carries 10 marks)**

20. a) Explain the terms permanganometry and dichrometry.  
b) Discuss the role and function of redox indicators in dichrometric titration.
21. Discuss Bohr atom model. Explain the line spectrum of hydrogen.

**[1 x 10 = 10 Marks]**



## FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

## First Semester B.Sc Zoology Degree Examination, November 2021

## BZL1B01T – Animal Diversity, Nonchordata

(2019 Admission onwards)

Time: 2 hours

Max. Marks : 60

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

1. What is phenetics?
2. Write notes on DNA barcoding.
3. What is homology?
4. Comment on sponge gemmule.
5. Differentiate protostomes and deuterostomes.
6. Explain mutualism. Give an example.
7. What are flame cells?
8. Write short note on cydippid larva.
9. Briefly explain ICZN.
10. Give an account on segmentation.
11. What is measly pork?
12. What is filariasis?

**(Ceiling 20 marks)****II. Paragraph questions. Each question carries 5 marks**

13. Comment on polymorphism in cnidarians with special reference to siphonophores.
14. Give an account on conjugation in Paramecium.
15. Briefly explain the classification of Platyhelminthes.
16. Describe the life cycle of Obelia.
17. Enlist the salient features of Ctenophora.
18. Explain the characteristic features of Ascaris.
19. Comment on Halistemma.

**(Ceiling: 30 marks)****III. Essay questions. Answer any one question.**

20. What is Systematics? Write an essay on modern trends in systematics.
21. Give an account on canal system in Sponges.

**(1 x 10=10 marks)**

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

First Semester B.Sc Botany Degree Examination, November 2021

BZL1C01T – Animal Diversity & Wild Life Conservation

(2019 Admission onwards)

Time: 2 hours

Max. Marks : 60

**Section A**

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

1. What are the fundamental chordate characters?
2. Describe the pathological conditions caused by *Plasmodium*.
3. What are the different levels of biodiversity?
4. What is polyembryony?.
5. Write are the functions of ambulacral system?
6. Write a note on *Nasikabatrachus sahyadrensis*.
7. Sketch and label Noctiluca.
8. Explain the parental care in ichthyophis.
9. Write a short note on WWF.
10. What is autoinfection? Give example.
11. Describe the salient features of Wildlife Protection Act 1972.
12. What is meant by exsitu conservation?

(Ceiling: 20 marks)

**Section B**

**II. Paragraph questions. Each question carries 5 marks**

13. Explain sexual dimorphism in *Ascaris*.
14. With the help of diagram, explain the gill structure of *Penaeus*.
15. Write a note on the parasitic adaptations of *Hirudinaria*
16. Describe the features of *Daboia*.
17. Describe the salient features of Division Agnatha.
18. Write a note on the adaptations of *Pteropus*.
19. Briefly describe the ecological hotspots in Indian region.

(Ceiling: 30 marks)

**Section C**

**III. Essay questions. Answer any one question.**

20. Explain the structure and functioning of digestive system of *Penaeus*.
21. With a neat labelled diagram, describe structure of ear of *Oryctolagus*

(1x10 = 10 marks)