

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
 Second Semester B.Sc Zoology Degree Examination, March /April 2019
 BBOT2C02 – Cryptogams, Gymnosperm & Plant Pathology
 (2018 Admission onwards)

Max. Marks: 64

Time: 3 hours

PART A
 (Answer all questions)

1.is a heterosporous Pteridophyte.
2. Laminarin and mannitol are the reserve food materials of the class.....
3.is the pathogen of Citrus canker.
4.is a fresh water alga known as pond scum.
5.is the ornamental species of *Cycas*.
6.is commonly known as peat moss.
7.is an example for RNA virus.
8. The pathogen of Hepatitis D is.....
9. Sterile conceptacle in *Sargassum* is known as.....
10.is the bicelled spore produced on wheat by *Puccinia*.

(10×1=10 Marks)

PART B
 (Answer any seven questions)

11. Economic and ecological importance of Bryophytes
12. Explain the control measures of Leaf mosaic disease of Tapioca
13. Importance of Actinomycetes
14. Epidemic disease
15. Viroids and prions
16. *Cycas* is known as living fossil. Discuss.
17. Structure of antheridium and oogonium in *Sargassum*
18. Write on Fungi imperfecti.
19. Salient features of the Class Cyanophyceae
20. What is prothallus.

(7×2=14 Marks)

PART C
(Answer any six questions)

21. Briefly explain the structure of TMV.
22. Write a note on the conjugation in *Spirogyra*.
23. List out the economic importance of *Bacteria*
24. Describe the structure of sex organs in *Riccia*.
25. Write a note on the structure of cystocarp of *Polysiphonia*.
26. Describe the reproduction methods in *Nostoc*.
27. Describe the structure of ovule of *Cycas*.
28. Write a brief account on the symptoms, the causal organism and control measure of Paddy Blast.

(6×4=24 M)

PART D
(Answer any two questions)

29. With the help of diagrams, explain the life cycle of *Puccinia*.
30. Describe the thallus organisation and mode of reproduction in *Usnea*.
31. Describe the life cycle and structure of gametophytes in *Selaginella*.

(2×8=16 M)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Second Semester B.Sc Botany Degree Examination, March /April 2019
BBOT2B02 – Research Methodology & Micro technique
 (2018 Admission onwards)

Time: 3 hours

Max. Marks: 80

Part A
(Answer all questions)

The hypothesis, which is nullified by negative evidences is called as.....

Lottery method is an example for.....

Write an example for any biological Journal.....

Light gathering capacity of a lens is called as.....

Name the accessory instrument mounted on the top of compound microscope

1 Molar solution means.....

Name of any chemical p^H indicators

The principle behind the colorimetry/spectrophotometry is.....

What is TEM?

10. Sample is placed into a fixed holder across moving knife in.....

(10 × 1= 10 marks)

Part B
(Answer all questions)

1. Distinguish between direct and indirect observations?
2. Comment on different types of data in statistical analysis
3. What are bar diagrams?
4. Differentiate between mean and median
5. What is resolving power? How can it be determined?
6. Write the composition of any two fixatives
7. What is ocular micrometer?
8. Discuss the null and alternative hypotheses with suitable examples.
9. Write any three applications of phase contrast microscopy
10. Comment on infiltration? Cite any one infiltration method.

(10 × 2= 20 marks)

Part C

(Answer *any six* of the following questions)

21. Explain census and sampling methods
22. Explain the design of experiments: LSD vs RBD
23. Discuss various kinds of centrifuge and their applications
24. Give the details of working procedure and components of spectrophotometer
25. Differentiate between histogram and frequency curve
26. Discuss various mechanical and optical components of microscopy
27. Write notes on the role of microtome in serial sectioning
28. Discuss the role of camera lucida in micrometry

(6 × 5 = 30)

Part D

(Answer *any six* of the following questions)

29. Explain the methodology for designing of a scientific experiment
30. Explain the principle and types of different chromatographic techniques
31. Write an essay on different types of microscopes

(2 × 10 = 20)