

TB142040

Reg. No:.....

Name:.....

B,Sc. DEGREE (CBCSS) EXAMINATION, APRIL, 2015

SECOND SEMESTER- CORE COURSE (BOTANY)

BOT2GIMPS - GENERAL INFORMATICS AND METHODOLOGIES IN PLANT SCIENCES

Time: 3 Hours

Maximum: 60 Marks

Part A (Short Answer Questions)

Answer all questions

Each question carries 1 mark

1. What are super computers?
2. Explain the term 'cell' in a spread sheet
3. What is e- mail?
4. What are vital stains?
5. What is meant by maceration
6. Define pH
7. Define biometry
8. Expand INSDOC

(8x1 =8marks)

Part B (Brief Answer Questions)

Answer any six questions

Each question Carries 2 marks

9. What is meant by internet?
10. Mention the features of word processor
11. Write a note dehydrating agents
12. Differentiate PAGE from AGE
13. Differentiate homogenization from centrifugation

14. What is Carnoy's fluid and mention its composition
15. What is Autoradiography?
16. How histograms differ from a frequency polygon?
17. Explain INFLIBNET
18. Write short notes on Natural dyes

(6x2 =12 marks)

Part C (Problems/ Derivations)

Answer any four questions
Each question carries 4 marks

19. What are the features of modern personal computers?
20. How to create a new presentation in MS Power point?
21. What is electrophoresis? Explain its principles and types
22. Explain measures of dispersion
23. Explain the special staining methods employed in EM
24. Explain different steps in permanent slides preparation in microtechniques

(4x4=16 marks)

Part D (Long answer/ Problem questions)

Answer any two questions
Each question carries 12 marks

25. What are stains? How they are classified? Explain the use of stains in microtechniques
26. Explain the principles Chromatography. Write a note on various types of chromatography
27. Explain the various statistical sampling methods employed for data collection
28. Explain the role of Information Technology (IT) in teaching and learning process

(2x 12 =24marks)

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Time: 3 Hours

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Part A (Short Answer Questions)

Answer all questions

Each question carries 1 mark

1. What is meant by DNA Interactive (DNAi)?
2. What is meant by DOS?
3. Name the application used for creation of presentations
4. What is mean by Laboratory Etiquette?
5. Define median
6. Define buffers
7. What are microtomes?
8. What is a pie diagram?

(8x1 =8marks)

Part B (Brief Answer Questions)

Answer any six questions

Each question Carries 2 marks

9. Differentiate from Minicomputers from microcomputers
10. What are operating systems (OS)? Give examples
11. Differentiate between Software from Hardware
12. Mention objectives of killing and fixing
13. Write down the principles of spectrophotometer
14. What is meant by resolving power of a microscope?

15. What is meant by Rf Value? How it is determined?
16. What is the role of ethyl alcohol in microtechnique practicals?
17. Write notes on Fluorescence microscope
18. Define Standard deviation? How it differ from standard error?

(6x2 =12 marks)

Part C (Problems/ Derivations)

Answer any four questions
Each question carries 4 marks

19. What is internet? Explain the major uses of internet
20. Write short note on Microsoft Excel
21. How sledge microtome differ from rotary microtome?
22. Explain the various methods of data collection?
23. Explain the basic principles of chromatography and its types
24. Explain the major stages of a research programme

(4x4=16 marks)

Part D (Long answer/ Problem questions)

Answer any two questions
Each question carries 12 marks

25. What are the features of modern personal computers? Describe the input output devices of a computer system
26. Explain in detail on various measures of central tendencies? What are measures of dispersion?
27. Give an account of buffers and its uses in biological systems and research methodologies
28. Explain the working principle, types and applications of electron microscope (EM)

(2x 12 = 24 marks)