SACRED HEART COLLEGE (AUTONOMOUS)
THEVARA, KOCHI -13
(Affiliated to Mahatma Gandhi University, Kottayam)

Reg. No. .....

Name .....

B. Sc. DEGREE EXAMINATION-NOVEMBER 2014
FIRST SEMESTER - BOTANY (CORE)

COURSE - U1CRBOT1: METHODOLOGY AND PERSPECTIVES OF SCIENCE AND AN INTRODUCTION TO THE WORLD OF PLANT DIVERSITY

Time: Three Hours Max. Marks: 60

(*Draw diagrams wherever necessary*)

PART A

Answer **all** question. Each question carry 1 mark.

1. What is an *ad-hoc* hypothesis?
2. Define scientific method?
3. What are variables?
4. Name two aquatic bryophytes.
5. Define plagiarism?
6. What are quinones?
7. What are mesosomes?
8. What is chitin?

1 x 8 = 8 marks

PART B

Answer **any six** questions. Each question carry 2 marks

9. Differentiate between scientific law and scientific theory.
10. Briefly explain the steps of the scientific method.
11. 'Bryophytes are the amphibians in plant kingdom', Explain. Write two economic importance of bryophytes
12. Differentiate between phycobiont and mycobiont.
13. Give an example of thallus variation found in the members of Phaeophyceae with suitable diagram
14. What are the economic importance of Rhodophyceae?
15. Give an account of general characteristics of Pteridophytes?
16. What are the thallus morphology of crustose and fruticose lichens?

2 x 6 = 12 marks

PART C

Answer **any four** questions. Each question carry 5 marks

17. Briefly describe some revolutions in 20th century in science?
18. Briefly explain the principles of experimental design.
19. Write short notes on flagellum, endospore and plasmids in bacteria.
20. Explain the diversity of fresh water and mangrove habitat.
21. Explain the evolutionary trends of aquatic to terrestrial habitat of plants.
22. Briefly explain the thallus morphology of branched and unbranched filamentous algae.

4 x 5 = 20 marks

PART D

Answer **any two** questions. Each question carry 10 marks

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23. Explain in detail with illustration, the collection treatment and presentation of scientific data.
24. Explain with suitable diagram the various morphological types of bacteria with examples.
25. Explain in detail the different types of terrestrial habitat diversity
26. Define plant –plant interaction .Give a detail account of parasitic plants and epiphytes with examples.

10 x 2 = 20 marks