



24. Write what you know about archaebacteria.
25. Write notes on taxonomic hierarchy.
26. What is the significance of phylogeny in classification ?

(6x2=12)

SECTION – E

Answer **any one**. Each carries a weightage of 4.

27. Explain the two kingdom, three, four, five and six kingdom classification.
28. Discuss the life cycle of *Puccinia* through the production of different types of spores.
29. Explain the lytic cycle of the bacteriophage with the help of diagrams. (1x4=4)



Reg. No. :

Name :

I Semester B.Sc. Degree (CCSS – Supple./Improv.) Examination,
November 2014
COMPLEMENTARY COURSE IN BOTANY
1C01 BOT : Diversity of Life – Different Categories – Microbes, Fungi
and Lichens and Evolution of Plants
(2012 and 13 Admn.)

Time : 3 Hours

Total Weightage : 30

SECTION – A

Answer **all**. Questions in bunches of **four**. Each bunch carries a weightage of 1.

1. Choose the correct answer :

- i) First life originated in
a) air
b) land
c) water
d) space
- ii) Tail fibers are seen in
a) Bacteria
b) *Rhizopus*
c) Bacteriophage
d) *Nostoc*
- iii) A N fixer
a) *Nostoc*
b) *Puccinia*
c) *Rhizopus*
d) Virus
- v) Name the primary host of *Puccinia*
a) Mulberry
b) Wheat
c) Rice
d) Barberry

2. State **True** or **False** :

- i) The algal partner in the lichen is known as phycobiont.
- ii) *Puccinia* is a saprophyte.
- iii) *Nostoc* lives as an endophyte within many higher plants.
- iv) Petrified specimens exhibit anatomical details.



3. Fill in the blanks :

- i) _____ are bi-celled spores produced on wheat by *Puccinia*.
- ii) _____ was proposed by John Hutchinson.
- iii) _____ bacteria live in harsh environments.
- iv) _____ lack true nuclei.

4. Match the following :

A	B	C
Bacteria	RNA	Polar nodule
<i>Rhizopus</i>	carbohydrate	bread
<i>Nostoc</i>	mycelium	HIV
Retrovirus	heterocyst	fermentation

5. Answer in **one** word or in **one** sentence :

- i) Geological time scale.
- ii) Cladogram.
- iii) Convergent evolution.
- iv) Impression.

(5×1=5)

SECTION – B

Answer **any four** of the following. Differentiate the following. **Each** carries a weightage of 1.

6. Systematics and Taxonomy
7. Homothallism and Heterothallism
8. Trichome and Mycelium



9. Nucleoid and Nucleus
10. Uredospore and Teleutospore.
11. Cast and Compression. (4×1=4)

SECTION – C

Answer **any five**. Short answer questions. **Each** question carries a weightage of 1.

12. What are pseudofossils ?
13. Explain the process of fossilization.
14. Write the economic importance of lichens.
15. Give the trichome structure in *Nostoc*.
16. Explain structure of the bacterial cell.
17. Draw a neat labeled diagram of the bacteriophage.
18. What is nomenclature ? Explain binomial and polynomial nomenclature. (5×1=5)

SECTION – D

Answer **any six**. Short essay questions. **Each** question carries a weightage of 2.

19. Give the general characteristics of fungi.
20. Explain the thallus structure of *Rhizopus* with the help of labeled diagrams.
21. Give the characteristic features of the viruses.
22. Explain the economic importance of bacteria.
23. Give the characteristic features of prokaryotes and eukaryotes.