42133

I Semester B.Sc. Degree Examination, Nov./Dec. 2016
(CBCS Scheme)
BOTANY (Paper – I)
Biodiversity (Algae, Fungi and Archegoniatae)

Time : 3 Hours Max. Marks : 90

Instructions : *1) Answer **all** Parts.*
*2) Draw diagrams **wherever** necessary.*

PART – A

I. Answer **any ten** of the following : **(10×2=20)**

1) What are trichoblasts ? Give an example.
2) List out the non-living properties of viruses.
3) What is mycorrhiza ? Mention its significance.
4) Differentiate between scales and rhizoids.
5) What is transfusion tissue ? Mention its function.
6) What are mesosomes ? Mention their function.
7) Mention the pigments of cyanophyceae.
8) What is ligule ? Mention its importance.
9) Mention the types of asexual reproduction in Fungi.
10) Differentiate between protostele and siphonostele.
11) Mention any four types of vegetative reproduction in Bryophytes.
12) Mention any two angiospermic characters of Gnetum.

PART – B

II. Explain **any six** of the following : **(6×5=30)**

13) Plurilocular sporangia.
14) Bacterial transformation.
15) Asexual reproduction in penicillium.
16) Gametophyte of Funaria.

P.T.O.

17) Cystocarp.

18) Osmunda sporophyte.

19) Cycas male cone.

20) T.S. of synangium of psilotum.

PART – C

III. Answer **any four** of the following : **(4×10=40)**

21) Describe the life cycle of puccinia on wheat.

22) With a neat labelled diagram describe the sporophyte of Marchantia.

23) Describe the structure and asexual reproduction in chlamydomonas.

24) With a neat labelled diagram describe the T.S. of selaginella stem.

25) Describe the structure and lytic cycle of bacteriophage.

26) Explain :

a) T.S. of corolloid root

b) V.S. of Gnetum ovule.

22133

I Semester B.Sc. Examination, Nov./Dec. 2013
(Semester Scheme)
BOTANY (Paper – I)
Introduction to Microbiology, Viruses, Immunology, Bacteria, Cyanobacteria and Phycology

Time : 3 Hours Max. Marks : 60

Instructions : *1) Answer **all** Parts.*
*2) Draw diagrams **wherever** necessary.*
*3) Answer should be either in **Kannada** or **English**.*

I. A) Answer **any six** of the following : **(6×2=12)**

ಕೆಳಗಿನ ಯಾವುದಾದರೂ **ಆರಕ್ಕೆ** ಉತ್ತರಿಸಿ :

1) What is coenobium ? Give an example.
ಸಿನೋಬಿಯಂ ಎಂದರೇನು ? ಉದಾಹರಣೆ ಕೊಡಿ.

2) What are interferons ? Mention any two applications.
ಇಂಟರ್ ಫೆರಾನ್‌ಗಳು ಎಂದರೇನು ? ಅವುಗಳ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಾಮುಖ್ಯತೆ ತಿಳಿಸಿ.

3) Write differences between bacteria and cyanobacteria.
ಬ್ಯಾಕ್ಟೀರಿಯಾ ಮತ್ತು ಸಯನೋಬ್ಯಾಕ್ಟೀರಿಯಾ ನಡುವೆ ಇರುವ ವ್ಯತ್ಯಾಸಗಳನ್ನು ಬರೆಯಿರಿ.

4) Mention any four methods of asexual reproduction in algae.
ಪಾಚಿ ಸಸ್ಯಗಳ ಯಾವುದಾದರೂ ನಾಲ್ಕು ಅಲೈಂಗಿಕ ವಂಶಾಭಿವೃದ್ಧಿ ವಿಧಾನಗಳನ್ನು ಹೆಸರಿಸಿ.

5) Contribution of Fred Griffith.
ಫ್ರೆಡ್ ಗ್ರಿಫಿತ್‌ನ ಕೊಡುಗೆ.

6) What is Heterocyst ? Mention any two functions.
ಹೆಟಿರೋಸಿಸ್ಟ್ ಎಂದರೇನು ? ಅದರ ಯಾವುದಾದರೂ ಎರಡು ಕಾರ್ಯಗಳನ್ನು ತಿಳಿಸಿ.

7) What are retro viruses ? Give an example.
ರೆಟ್ರೋ ವೈರಸ್‌ಗಳು ಎಂದರೇನು ? ಉದಾಹರಣೆ ಕೊಡಿ.

8) Mention the important pigments found in cyanobacteria.
ಸಯನೋಬ್ಯಾಕ್ಟೀರಿಯಾದಲ್ಲಿ ಇರುವ ಪ್ರಮುಖ ವರ್ಣದ್ರವ್ಯಗಳನ್ನು ಹೆಸರಿಸಿ.

P.T.O.

II. B) Answer **any six** of the following : **(6×4=24)**
ಕೆಳಗಿನ ಯಾವುದಾದರೂ **ಆರಕ್ಕೆ** ಉತ್ತರಿಸಿ :

9) Give a brief account on general properties of Mycoplasma.
ಮೈಕೊಪ್ಲಾಸ್ಮಾದ ಸಾಮಾನ್ಯ ಲಕ್ಷಣದ ಬಗ್ಗೆ ವಿವರಣೆ ನೀಡಿ.

10) Describe the structure of chlamydomonad cell.
ಕ್ಲಮೈಡೋಮನಾಡ್ ಕೋಶದ ರಚನೆಯನ್ನು ತಿಳಿಸಿ.

11) Explain the leaf spot of mango.
ಮಾವಿನ ಎಲೆ ಚುಕ್ಕಿ ರೋಗವನ್ನು ವಿವರಿಸಿ.

12) Write a brief note on economic importance of Algae as food and medicine.
ಆಹಾರ ಮತ್ತು ಔಷಧಿಗಳಲ್ಲಿ ಪಾಚಿ ಸಸ್ಯಗಳ ಆರ್ಥಿಕ ಪ್ರಾಮುಖ್ಯತೆಯ ಬಗ್ಗೆ ಲಘು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

13) Describe the structure of bacterial cell wall.
ಬ್ಯಾಕ್ಟೀರಿಯಾ ಕೋಶ ಪೊರೆಯ ರಚನೆಯನ್ನು ಬರೆಯಿರಿ.

14) Explain globule.
ಗ್ಲಾಬ್ಯೂಲನ್ನು ವಿವರಿಸಿ.

15) Mention the living and non-living properties of viruses.
ವೈರಸ್‌ಗಳ ಸಜೀವ ಮತ್ತು ನಿರ್ಜೀವ ಗುಣಗಳನ್ನು ವಿವರಿಸಿ.

16) Describe the structure of spirulina. Add a note on its economic importance.
ಸ್ಪೈರುಲಿನಾ ರಚನೆಯನ್ನು ವಿವರಿಸಿ. ಅದರ ಪ್ರಾಮುಖ್ಯತೆಯ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

III. C) Answer **any three** of the following : **(3×8=24)**
ಕೆಳಗಿನ ಯಾವುದಾದರೂ **ಮೂರಕ್ಕೆ** ಉತ್ತರಿಸಿ :

17) Describe the post fertilization changes in polysiphonia.
ಪಾಲಿಸೈಫೋನಿಯಾದಲ್ಲಿ ಗರ್ಭಧಾರಣೆಯ ನಂತರ ಆಗುವ ಬದಲಾವಣೆಗಳನ್ನು ವಿವರಿಸಿ.

18) Give an account of economic importance of bacteria.
ಬ್ಯಾಕ್ಟೀರಿಯಾಗಳ ಆರ್ಥಿಕ ಪ್ರಾಮುಖ್ಯತೆ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

19) What is isomorphic alternation of generation ? Explain with reference to life cycle of ectocarpus.
ಸಮಾನರೂಪಿ ತಲೆಮಾರುಗಳ ಆವರ್ತನೆ ಎಂದರೇನು ? ಇದನ್ನು ಎಕ್ಟೋಕಾರ್ಪಸ್‌ನ ಜೀವನ ಚಕ್ರಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ವಿವರಿಸಿ.

20) Describe replication in viruses.
ವೈರಸ್‌ನಲ್ಲಿ ರೆಪ್ಲಿಕೇಶನ್‌ನನ್ನು ವಿವರಿಸಿ.

21) Write short note on :
a) Branching in scytonema
b) Water blooms.
ಸಂಕ್ಷಿಪ್ತ ವಿವರಣೆ ನೀಡಿ :
a) ಸೈಟೋನಿಮಾದಲ್ಲಿ ಕವಲೊಡೆಯುವಿಕೆ
b) ವಾಟರ್ ಬ್ಲೂಮ್.

22133

I Semester B.Sc. Examination, November/December 2015
(Semester Scheme)
BOTANY (Paper – I)
Introduction to Microbiology, Viruses, Immunology, Bacteria, Cyanobacteria and Phycology

Time : 3 Hours Max. Marks : 60

Instructions : *1) Answer **all** Parts.*
*2) **Draw** diagrams **wherever** necessary*
*3) Answer in **English**.*

PART – A

I. A) Answer **any six** of the following. **(6×2=12)**

1) Contributions of Fred Griffith.
2) Expand ELISA and mention any two applications.
3) What are Lymphocytes ? Mention the types.
4) Classify Bacteria based on flagellation.
5) Mention the reserve food materials of Phaeophyceae and Rhodophyceal.
6) Write a neat labelled diagram of chlamydomonas cell.
7) List out any four similarities between bacteria and cyanobacteria.
8) Mention any four methods of Asexual reproduction in Algae.

PART – B

II. B) Answer **any six** of the following. **(6×4= 24)**

9) List out the living and non living characters of viruses.
10) Explain conjugation in Bacteria.
11) Write the characteristic features of mycoplasma.
12) Describe chemical structure of bacterial cell wall.
13) Write a note on economic importance of algae as food and medicine.
14) Explain the structure of Globule.
15) Tetrasporophyte of polysiphonia.
16) Describe the structure of scytonema.

P.T.O.

PART – C

III. C) Answer **any three** of the following : **(3×8= 24)**

17) Describe the structure of volvox colony and explain its sexual reproduction.

18) Give an account on monoclonal antibodies.

19) What is isomorphic alternation of generation ? Explain it with reference to ectocarpus.

20) Describe the following. :

a) Structure of oedogonium filament.

b) SCP.

21) Write a note on the following :

a) Phototrophic Bacteria

b) Role of Bacteria in industries.

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I Semester B.Sc. Examination, Nov./Dec. 2016
(Semester Scheme)
BOTANY
Introduction to Microbiology, Viruses, Immunology Bacteria, Cyanobacteria and Phycology

Time : 3 Hours Max. Marks : 60

Instructions : *1) Answer **all** Parts.*
*2) Draw diagrams **wherever** necessary.*
*3) Answer in **English**.*

I. A) Answer **any six** of the following : **(6×2=12)**

1) What are retroviruses ? Give an example.
2) Mention the important pigments found in Cyanobacteria.
3) Contribution of Zender and Lederberg.
4) Mention any four methods of Asexual reproduction in Algae.
5) What is Immunoglobulin ? Mention its types.
6) Differentiate between plasmid and mesosome.
7) What is hold fast ? Mention its function.
8) Classify the Bacteria based on flagellation.

II. B) Answer **any six** of the following : **(6×4=24)**

9) ELISA technique.
10) Describe Sandal spike disease.
11) Describe structure of spirulina and add a note on its economic importance.
12) Explain palmella stage.
13) Describe thallus of polysiphonia.
14) Explain pleurilocular sporangium.
15) Algae as Biofertilizers.
16) Give an account of Bacterial nutrition.

P.T.O.

III. C) Answer **any three** of the following : **(3×8=24)**

17) Describe sex organs of Chara.

18) Explain ultrastructure of Bacterial cell.

19) Explain ultrastructure and mode of infection of HIV.

20) Explain sexual reproduction in oedogonium.

21) Write short note on :

a) Water blooms

b) Coenobium.

Q.P. Code – 42133

First Semester B.Sc. Degree Examination, November 2017

(CBCS – Semester Scheme)

Botany

Paper I – BIODIVERSITY (ALGAE, FUNGI AND ARCHEGONIATAE)

Time : 3 Hours] *[Max. Marks : 90*

Instructions to Candidates :

1) *Answer ALL Parts.*

2) *Draw diagrams wherever necessary.*

PART – A

I. Answer any **TEN** of the following : **(10 × 2 = 20)**

1. Mention the contribution of Iwanowski.

2. What is unilocular sporangium? Mention its significance.

3. Mention any two pigments of Algae.

4. What are saprophytes? Give an example.

5. What is VAM? Mention its importance.

6. What is alternation of generation?

7. What is Peristome? Mention its function.

8. Draw a neat labeled diagram of gemma.

9. What are elaters? Mention its function.

10. Why rhizophores are called organs of suigenesis?

11. What is enation? Where do you find?

12. What is pavement tissue? Give an example.

PART – B

II. Explain any **SIX** of the following : **(6 × 5 = 30)**

13. Bunchy top of Banana.

14. Ultra structure of TMV with neat labelled diagram.

15. Nannandrous filament of Oedogonium with neat labelled diagram.

16. Structure of Scytonema filament.

17. Morphology of Lichen thallus.

18. T.S. of antheridiophore of Marchantia.

19. T.S. of synangium of Psilotum with neat labelled diagram.

20. Enumerate the angiospermic characters of Gnetum.

PART – C

III. Answer any **FOUR** of the following : **(4 × 10 = 40)**

21. Describe the ultra ~~stem~~ structure of Bacterium cell.

22. Describe thallus and carposporophyte of Polysiphonia.

23. Describe the structure and asexual reproduction in Penicillium.

24. Give an account on Stelar evolution in Pteridophytes.

25. Describe the structure of Funeria sporophyte.

26. Give an account on :

    (a) Tikka disease of groundnut.

    (b) T.S. of Coralloid root of Cycas.

19/11/19 9.30 to 12.30

Q.P. Code – 42133

First Semester B.Sc. Degree Examination, October/November 2019

(CBCS Scheme)

Botany

Paper I — BIODIVERSITY (ALGAE, FUNGI AND ARCHEGONIATE)

Time : 3 Hours] *[Max. Marks : 90*

Instructions to Candidates :

1) *Answer all Parts.*

2) *Draw neat labeled diagrams wherever necessary.*

PART – A

I. Answer any **TEN** of the following : **(10 × 2 = 20)**

1. What are elaters? Mention their function.
2. Mention the types of bacteria based on their shape.
3. What is Isomorphic alternation of generations? Give an example.
4. What is Ligule? Mention its function.
5. Mention the reserve food materials of Cyanophyceae and Rhodophyceae.
6. What are imperfect fungi? Give an example.
7. List out the non-living characters of viruses.
8. What is peristome? Mention its function.
9. Mention any two symptoms of leaf curl of papaya.
10. What is pavement tissue? Mention its function.
11. Differentiate between Protostele and Siphonostele.
12. What are mycorrhizae? Mention their types.

PART – B

II. Explain any **SIX** of the following : **(6 × 5 = 30)**

13. Selaginella strobilus.
14. Asexual reproduction in Penicillium.
15. Economic importance of Lichens.
16. Structure of Oedogonium Thallus.
17. Bunchy top of Banana.
18. T.S. of Marchantia Thallus.
19. Structure of a Bacteriophage.
20. T.S. of Corolloid root.

PART – C

III. Answer any **FOUR** of the following : **(4 × 10 = 40)**

21. Explain the post-fertilization changes in Polysiphonia.
22. With a neat labeled diagram describe the structure of Bacterial Cell.
23. Describe the life cycle of Puccinia on primary host.
24. Describe the antheridial and archegonial head of Funaria.
25. Write note on :
    (a) Tassel of Osmunda
    (b) T.S. of Psilotum stem.
26. Write a note on :
    (a) Angiospermic characters of Gnetum
    (b) V.S. of Cycas ovule.

25/11/16

M

22333

III Semester B.Sc. Examination, November/December 2016
(Semester Scheme)
BOTANY
Pteridophytes, Paleobotany, Environmental Biology and Phytogeography

Time : 3 Hours Max. Marks : 60

Instructions : *1) Answer **all** Parts.*
*2) Answer **all** questions in **English only.***
*3) Draw diagram **where even** necessary.*

I. Answer **any six** of the following. **(6×2=12)**

1) What is ligule ? Mention its importance.

2) Mention any two objectives of social forestry.

3) What are decomposers ? Mention their role.

4) What is geological time scale ? Mention any two eras.

5) What is Remote sensing ? Mention its significance.

6) What is Vivipary ? Give an example.

7) What are Parasitic angiosperms ? Give an example.

8) What is Protocorm ? Where it is found ?

II. Answer **any six** of the following. **(6×4=24)**

9) Explain the T.S. of Synangium of Psilotum.

10) Describe Green House Effect.

11) Write a note on Water Shed Management.

12) Explain any four types of Fossils.

13) Describe the vegetational types of Karnataka.

P.T.O.

14) Explain the anatomical adaptations of Hydrophytes.

15) Explain the methods of Soil conservation.

16) Write a note on Water Pollution.

III. Answer **any three** of the following. **(8×3=24)**

1) With a neat labelled diagram describe the anatomy of Marselia Rhizome.

2) Give an account of Heterospory and Seed habit.

3) What is Ecological Succession ? Explain Xerosere.

4) With a neat labelled diagram describe the T.S. of Selaginella stem.

5) Explain Light and Water as Climatic factors.

Q.P. Code – 22133

First Semester B.Sc. Degree Examination, November 2017

(Semester Scheme)

Botany

Paper I – INTRODUCTION TO MICROBIOLOGY, VIRUSES, IMMUNOLOGY, BACTERIA, CYANOBACTERIA AND PHYCOLOGY

Time : 3 Hours] *[Max. Marks : 60*

Instructions to Candidates :

1. *Answer ALL Parts.*
2. *Draw diagrams wherever necessary.*

PART – A

I. Answer any **SIX** of the following : **(6 × 2 = 12)**

1. Draw a neat labelled diagram of TMV.
2. Contributions of Louis Pasteur.
3. What are viruses? Mention the components.
4. What is plasmid? Where it is found?
5. Mention the pigments present in cyanophycean cell.
6. What is immunity? Mention the types.
7. What are cap cells? Where it is found?
8. Write a neat labelled diagram of chlamydomonad cell.

PART – B

II. Answer any **SIX** of the following : **(6 × 4 = 24)**

9. With a neat labelled diagram, describe the structure of Bacterium cell.
10. Explain the structure of globule.
11. Branching in scytonema.

12. Describe citrus canker.

13. Describe the structure of HIV.

14. Explain transduction in bacteria.

15. Give a brief account on monoclonal antibodies.

16. Tetrasporophyte of polysiphonia.

PART – C

III. Answer any **THREE** of the following : **(3 × 8 = 24)**

17. Give an account of economic importance of Bacteria.

18. Describe living and non-living characters of viruses.

19. Describe the structure and asexual reproduction in volvox.

20. Explain :
    (a) Nannandrium
    (b) SCP

21. (a) Sandal spike disease.
    (b) Binary fission in bacteria.

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I Semester B.Sc. Degree Examination, Nov./Dec. 2016
(CBCS Scheme)
BOTANY (Paper – I)
Biodiversity (Algae, Fungi and Archegoniatae)

Time : 3 Hours Max. Marks : 90

Instructions : *1) Answer **all** Parts.*
*2) Draw diagrams **wherever** necessary.*

PART – A

I. Answer **any ten** of the following : **(10×2=20)**

1) What are trichoblasts ? Give an example.
2) List out the non-living properties of viruses.
3) What is mycorrhiza ? Mention its significance.
4) Differentiate between scales and rhizoids.
5) What is transfusion tissue ? Mention its function.
6) What are mesosomes ? Mention their function.
7) Mention the pigments of cyanophyceae.
8) What is ligule ? Mention its importance.
9) Mention the types of asexual reproduction in Fungi.
10) Differentiate between protostele and siphonostele.
11) Mention any four types of vegetative reproduction in Bryophytes.
12) Mention any two angiospermic characters of Gnetum.

PART – B

II. Explain **any six** of the following : **(6×5=30)**

13) Plurilocular sporangia.
14) Bacterial transformation.
15) Asexual reproduction in penicillium.
16) Gametophyte of Funaria.

P.T.O.

17) Cystocarp.

18) Osmunda sporophyte.

19) Cycas male cone.

20) T.S. of synangium of psilotum.

PART – C

III. Answer **any four** of the following : **(4×10=40)**

21) Describe the life cycle of puccinia on wheat.

22) With a neat labelled diagram describe the sporophyte of Marchantia.

23) Describe the structure and asexual reproduction in chlamydomonas.

24) With a neat labelled diagram describe the T.S. of selaginella stem.

25) Describe the structure and lytic cycle of bacteriophage.

26) Explain :

a) T.S. of corolloid root

b) V.S. of Gnetum ovule.

Q.P. Code – 42133

First Semester B.Sc. Degree Examination, November 2017

(CBCS – Semester Scheme)

Botany

Paper I – BIODIVERSITY (ALGAE, FUNGI AND ARCHEGONIATAE)

Time : 3 Hours] *[Max. Marks : 90*

Instructions to Candidates :

1) *Answer ALL Parts.*

2) *Draw diagrams wherever necessary.*

PART – A

I. Answer any **TEN** of the following : **(10 × 2 = 20)**

1. Mention the contribution of Iwanowski.

2. What is unilocular sporangium? Mention its significance.

3. Mention any two pigments of Algae.

4. What are saprophytes? Give an example.

5. What is VAM? Mention its importance.

6. What is alternation of generation?

7. What is Peristome? Mention its function.

8. Draw a neat labeled diagram of gemma.

9. What are elaters? Mention its function.

10. Why rhizophores are called organs of suigenesis?

11. What is cnation? Where do you find?

12. What is pavement tissue? Give an example.

PART – B

II. Explain any **SIX** of the following : **(6 × 5 = 30)**

13. Bunchy top of Banana.

14. Ultra structure of TMV with neat labelled diagram.

15. Nannandrous filament of Oedogonium with neat labelled diagram.

16. Structure of Scytonema filament.

17. Morphology of Lichen thallus.

18. T.S. of antheridiophore of Marchantia.

19. T.S. of synangium of Psilotum with neat labelled diagram.

20. Enumerate the angiospermic characters of Gnetum.

PART – C

III. Answer any **FOUR** of the following : **(4 × 10 = 40)**

21. Describe the ultra stem of Bacterium cell.

22. Describe thallus and carposporophyte of Polysiphonia.

23. Describe the structure and asexual reproduction in Penicillium.

24. Give an account on Stelar evolution in Pteridophytes.

25. Describe the structure of Funeria sporophyte.

26. Give an account on :
    (a) Tikka disease of groundnut.
    (b) T.S. of Coralloid root of Cycas.