

2015

(October)

BOTANY

(Elective/Honours)

FIRST PAPER

(Algae, Bryophytes and Pteridophytes)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** which is compulsory and
four questions, selecting **one** from each Section

1. Write short notes on the following : $4 \times 4 = 16$

(a) Cell structure of diatoms

(b) Globule of *Chara*

(c) Archegoniophore of *Marchantia*

(d) Strobilus of *Selaginella*

(2)

SECTION—I

2. Describe, in detail, the range of vegetative structures in Chlorophyceae with diagrams. 10
3. Give an account of Fritsch's classification with its salient characters. 10

SECTION—II

4. Describe, with diagrams, the life cycle of *Polysiphonia*. 10
5. Write, in detail, the evolution of sex in algae. 10

SECTION—III

6. With the help of suitable diagrams, describe the evolution of sporophytes in bryophytes: 10
7. Give an illustrative account of the range of gametophytic structures in bryophytes. 10

(3)

SECTION—IV

8. Discuss the evolution of stele in pteridophytes with suitable diagrams. 10
9. (a) With suitable diagrams, describe different types of gametophyte of *Lycopodium*. 6
- (b) Write a note on the economic importance of pteridophytes. 4

1/EH-62 (i) (Syllabus-2015)

2016

(October)

BOTANY

(Elective/Honours)

(Algae, Bryophytes and Pteridophytes)

(BOT-ELH-101)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer Question No. 1 which is compulsory and other **four**, selecting **one** from each Section

1. Write short notes on the following : 4×4=16

(a) Importance of pigments in algal classification

(b) Cystocarp of *Polysiphonia*

(c) Antheridiophore of *Marchantia*

(d) Strobilus of *Lycopodium*

D7/33

(Turn Over)

(2)

SECTION—I

2. Describe the range of vegetative structures in Phaeophyceae. with suitable diagrams. 10
3. Give an account on the Lee's classification of algae. 10

SECTION—II

4. Give a general account on the economic importance of algae. 10
5. Describe the life cycle of *Oedogonium* with diagrams. 10

SECTION—III

6. Describe the life cycle of *Anthoceros* with labelled diagrams. 10
7. Describe the classification of bryophytes according to Proskauer. 10

SECTION—IV

8. Describe heterospory and seed habit in pteridophytes. 10
9. Describe in detail the evolution of stele in pteridophytes with suitable diagrams. 10

D7-3200/33

1/EH-62 (i) (Syllabus-2015)

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2 0 1 7

(October)

BOTANY

(Elective/Honours)

(Algae, Bryophytes and Pteridophytes)

(BOT-ELH-101)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** which is compulsory and
other **four**, selecting **one** from each Section

1. Write notes on the following : 4×4=16

(a) Haplobiontic life cycle in green algae

(b) Female sex organ of *Chara*

(c) Gemma cups

(d) Siphonostele

(2)

SECTION—I

2. Give an account of Fritsch's classification of algae. 10
3. Describe the range of vegetative structures of Rhodophyceae. 8+2=10

SECTION—II

4. Give an account of the evolution of sex in algae. 10
5. Describe asexual reproduction in *Ectocarpus* giving suitable diagrams. 8+2=10

SECTION—III

6. Give an illustrated account of the evolution of sporophyte in Bryophytes. 4+6=10
7. Describe the following with suitable diagrams : (3+2)×2=10
- (a) Sporophyte of *Anthoceros*
- (b) Archegoniophore of *Marchantia*

8D/39

(Continued)

(3)

SECTION—IV

8. What is alternation of generations? Explain with the help of the life cycle of *Lycopodium*. 2+8=10
9. Write notes on the following : 5×2=10
- (a) Economic importance of pteridophytes
- (b) Telome concept

8D—2900/39

1/EH-62 (i) (Syllabus-2015)

1/EH-62 (i) (Syllabus-2015)

2018

(October)

BOTANY

(Elective/Honours)

(Algae, Bryophytes and Pteridophytes)

(BOT-ELH-101)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** which is compulsory and
other **four**, selecting **one** from each Section

1. Write notes on the following : 4×4=16

(a) Salient features of Chlorophyceae

(b) Cell structure of centric diatoms

(c) Capsule of *Sphagnum*

(d) Economic importance of pteridophytes

(2)

SECTION—I

2. Give an account on the types of life cycle in green algae. 10
3. Describe the range of vegetative structures of Phaeophyceae. 10

SECTION—II

4. Give a general account on the economic importance of algae. 10
5. Describe the post-fertilization changes and development of cystocarp in the life cycle of *Polysiphonia* with suitable diagrams. 6+4=10

SECTION—III

6. With the help of suitable diagrams, describe the range of gametophytic structures in bryophytes. 4+6=10
7. Give an account on the sexual reproduction in *Marchantia* with diagrams. 6+4=10

D9/19

(Continued)

(3)

SECTION—IV

8. Describe the following : 5×2=10
- (a) Rhizophore of *Selaginella*
- (b) LS of strobilus of *Selaginella*
9. Write notes on the following : 5+5=10
- (a) Telome concept
- (b) Heterospory and seed habit in pteridophytes

D9—3000/19

1/EH-62 (i) (Syllabus-2015)

1/EH-62 (i) (Syllabus-2015)

2019

(October)

BOTANY

(Elective/Honours)

[BOT-ELH-101 (T)]

(Algae, Bryophytes and Pteridophytes)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer Question No. 1 which is compulsory and other **four**, selecting **one** from each Section

1. Write notes on the following : $4 \times 4 = 16$

(a) Haplontic life cycle in green algae

(b) Structure of globule in *Chara*

(c) Economic importance of *Sphagnum*

(d) Ecological importance of pteridophytes

20D/31

(Turn Over)

SECTION—I

2. Give an account of Fritsch's classification of algae with its salient characters. 10

BOTANY

3. Describe the range of vegetative structures in chlorophyceae with suitable diagrams. 6+4=10

SECTION—II

4. Give an account on the evolution of sex in algae. 10

5. With the help of diagrams, explain the mode of asexual reproduction in *Ectocarpus*. 2+8=10

SECTION—III

6. Describe the evolution of gametophyte in Bryophytes. 10

7. Describe the following with suitable diagrams : 5×2=10

(a) Sporophyte of *Anthoceros*

(b) Female reproductive structure of *Marchantia*

SECTION—IV

8. With the help of suitable diagrams, describe the following : 5+5=10

(a) Different types of gametophytes of *Lycopodium*

(b) L/S of strobillus of *Selaginella*

9. Discuss the evolution of stele in pteridophytes with suitable diagrams. 8+2=10
