

Student's Copy

2024

(CBCS)

(5th Semester)

BOTANY

SIXTH PAPER

(Algae, Lichens, Bryophytes)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A-OBJECTIVE)

(Marks: 10)

Tick (\checkmark) the correct answer in the brackets provided :

1. Sexual reproduction is absent in

- (a) blue-green algae ()
- (b) green algae ()
- (c) brown algae ()
- (d) red algae ()

2. Reserve food of the class Phaeophyceae is

- (a) starch and fat ()
- (b) chrysose ()
- (c) laminarin ()
- (d) floridean starch ()

/136

 $1 \times 10 = 10$

- ω Isomorphic diplohaplontic life cycle is found in
- a) Bacillariophyceae
- 9 Chlorophyceae
- <u>c</u> Rhodophyceae
- (d Phaeophyceae
- 4 Antibiotic Chlorellin is obtained from the member of
- a) Phaeophyceae
- 6 Xanthophyceae
- 6 Chlorophyceae
- a) Bacillariophyceae
- Ģ A semi-parasite relationship between the algal and fungal components of a Lichen is termed as
- <u>a</u> epiphytism
- નુ helotism
- 0 parasitism
- (d predation
- ٥. One of the asexual reproductive structures of Lichen is
- a) spermogonium
- Ð apothecium
- <u>c</u> carpogonium
- a) isidium
- 7 Mode of reproduction in bryophytes is
- a) vegetative reproduction only
- g sexual and asexual reproduction
- <u>c</u>
- vegetative and sexual reproduction

- (d)

- asexual reproduction only

Ph Sp en (d) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d		2		۲		Wri							10.					9.				-	8. I	
independent from the sporophytic phase is from the gametophytes is from the following supp d ancestry? Presence of thalloid gar Zygote does not found Regressive evolution is club-shaped () vase-shaped () flask-shaped () globose-shaped () globose-shaped () sotes on the following : otes on the following : ores and resting spores OR urilocular sporangia						te n			(d)	(c)	(b)	(a)	Ant	(d)	(c)	(d	(a)	Whi alga	(d)	(c)	(d)	(a)	n ti	
porophytes () very short-lived and completely independent () netophyte () () found () N : B—SHORT ANSWERS) (Marks : 15) UNIT—I	Contra	irilocular sporangia	OR	ores and resting spores	UNIT—I		(Marks : 15)	(SECTION : B-SHORT ANSWERS)		flask-shaped ()	vase-shaped ()	club-shaped ()	heridia of bryophyte is	Regressive evolution is found ()	Zygote does not found ()	Presence of thalloid gametophyte ()	Presence of vascular bundle ()	ollowing supports the evidence that bryophytes have	the sporophytic phase is very short-lived and completely independent from the gametophytes ()	the gametophytic phase is very short-lived and completely independent from the sporophytes ()	the sporophytic phase is very short-lived and completely dependent upon the gametophytes $($ $)$	the gametophytic phase is very short-lived and completely dependent upon the sporophytes ()	In the life cycle of bryophytes	

/136

¢

UNIT-H

ω Economic importance of algae

OR

4 Heterocyst

UNIT-III

Ģ Isidia and soredia

Ro

٥ Ascolichens

UNIT-IV

7 Bryopsida

OR

œ Innovation in Sphagnum

UNIT-V

œ. Pteridophytes origin of bryophytes

QR

10. Progressive sporophyte evolution

(SECTION : C-DESCRIPTIVE)

(*Marks* : 50)

Answer the following questions :

/136

N

Write a

Rhodophyceae.

brief note on the characteristic features of Cyanophyceae

and

۲

Give an outline of Fritsch's system of classification of algae.

Unit--I

 $10 \times 5 = 50$

10

ØR

4

Contd.

UNIT-II

ω diagram. Describe the mode of reproduction found in Chlorophyceae with suitable 10

QR

4 Give an account on the alternation of generation in algae.

UNIT-III

ŝ Describe the distribution and general characteristic features of Lichens. 10

OR

<u>ە</u> Give an account of the structure and reproduction of Lichens.

UNIT-IV

7 What are bryophytes? Write a note on the classification of bryophytes with suitable examples. 2+8=10

ß

œ With the help of labelled diagram, compare the sporophyte of Riccia and Sphagnum 5+5=10

UNIT-V

9 Write an essay on the evolution of sporophytes in bryophytes. 10

QR

10. Write short notes on the following :

5+5=10

- a Archegonia of Pellia
- (d Antheridium of Polytrichum

۰ * *

G25-210

/136

BOT/V/CC/11

Student's Copy

2024

(CBCS)

5th Semester)

BOTANY

SIXTH PAPER

(Algae, Lichens, Bryophytes)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A-OBJECTIVE)

(Marks : 10)

Tick (\checkmark) the correct answer in the brackets provided :

 $1 \times 10 = 10$

.-Sexual reproduction is absent in

- (a) blue-green algae
- 9 green algae
- <u></u> brown algae
- (d red algae
- Ņ Reserve food of the class Phaeophyceae is
- a) starch and fat
- 9 chrysose
- 0 laminarin
- floridean starch
- (d)

- ω Isomorphic diplohaplontic life cycle is found in
- a Bacillariophyceae
- ট Chlorophyceae
- <u>0</u> Rhodophyceae
- a Phaeophyceae
- 4 Antibiotic Chlorellin is obtained from the member of
- a Phaeophyceae
- 9 Xanthophyceae
- <u></u> Chlorophyceae
- a) Bacillariophyceae
- Ś A semi-parasite relationship between the algal and fungal components of a Lichen is termed as
- æ epiphytism
- 9 helotism
- 0 parasitism
- a) predation
- 6 One of the asexual reproductive structures of Lichen is
- (a) spermogonium
- G apothecium
- 6 carpogonium
- (d isidium
- 7 Mode of reproduction in bryophytes is
- vegetative reproduction only
- a)
- g sexual and asexual reproduction

- 0

- (d

- vegetative and sexual reproduction
- asexual reproduction only

N

œ In the life cycle of bryophytes

- (a) the gametophytic phase is very short-lived and completely dependent upon the sporophytes
- đ the sporophytic phase is very short-lived and completely dependent upon the gametophytes $\overline{}$
- 0 the independent from the sporophytes gametophytic phase is very short-lived and completely
- (d the sporophytic phase is very short-lived and completely independent from the gametophytes
- 9 Which of the following supports the evidence that bryophytes have algal ancestry? the
- <u>a</u> Presence of vascular bundle
- đ Presence of thalloid gametophyte
- <u></u> Zygote does not found
- a) Regressive evolution is found

10 Antheridia of bryophyte is

- a) club-shaped
- 6 vase-shaped
- <u>0</u> flask-shaped
- (d globose-shaped

(SECTION : B--SHORT ANSWERS)

(Marks: 15)

Write notes on the following :

 $3 \times 5 = 15$

UNIT-

Spores and resting spores

OR

Plurilocular sporangia

Ņ

ω

Contd.

/136

UNIT-II

ω Economic importance of algae

PRO

4 Heterocyst

UNIT-III

ы Isidia and soredia

20

<u>ە</u> Ascolichens

UNIT-IV

7 Bryopsida

OR

œ Innovation in Sphagnum

UNIT-V

<u>9</u> Pteridophytes origin of bryophytes

20

10. Progressive sporophyte evolution

(SECTION : C-DESCRIPTIVE)

(Marks : 50)

Answer the following questions :

 $10 \times 5 = 50$

10

UNIT-

.-Give an outline of Fritsch's system of classification of algae.

OR

2 Write a brief note on the characteristic features of Cyanophyceae and

/136

4

Contd.

UNIT-II

ω diagram. Describe the mode of reproduction found in Chlorophyceae with suitable 10

OR

4 Give an account on the alternation of generation in algae.

UNIT-III

ຸບາ Describe the distribution and general characteristic features of Lichens. 10

QR

م Give an account of the structure and reproduction of Lichens.

UNIT-IV

7 What are bryophytes? Write a note on the classification of bryophytes with suitable examples 2+8=10

0R

00 With the help of labelled diagram, compare the sporophyte of Riccia and Sphagnum 5+5=10

UNIT-V

9 Write an essay on the evolution of sporophytes in bryophytes. 10

OR

- 5 Write short notes on the following : 5+5=10
- (a) Archegonia of Pellia
- (b) Antheridium of Polytrichum
- * * *

CR.