

NEET PLANT KINGDOM — ALGAE (CHLOROPHYCEAE, PHAEOPHYCEAE, RHODOPHYCEAE) — PYQS

Max. Marks: 104

Questions: 26

Section A (MCQ) — 26 questions

Q.1 Read the following statements and choose the set of correct statements:

In the members of Phaeophyceae,

- A. Asexual reproduction occurs usually by biflagellate zoospores.
- B. Sexual reproduction is by oogamous method only.
- C. Stored food is in the form of carbohydrates which is either mannitol or laminarin.
- D. The major pigments found are chlorophyll a, c and carotenoids and xanthophyll.
- E. Vegetative cells have a cellulosic wall, usually covered on the outside by gelatinous coating of algin.

Choose the correct answer from the options given below: [NEET (UG) 2024]

- (1) A, B, C and D only (2) B, C, D and E only
(3) A, C, D and E only (4) A, B, C and E only

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Q.2 Hydrocolloid carrageen is obtained from :

[NEET (UG) 2022]

- (1) Chlorophyceae and Phaeophyceae
- (2) Phaeophyceae and Rhodophyceae
- (3) Rhodophyceae only
- (4) Phaeophyceae only

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Q.3 Which of the following is incorrectly matched?

[NEET (UG) 2022]

- (1) *Ectocarpus* - Fucoxanthin
- (2) *Ulothrix* - Mannitol
- (3) *Porphyra* - Floridian Starch
- (4) *Volvox* - Starch

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Q.4 Match List-I with List-II :

List-I		List-II	
a.	<i>Chlamydomonas</i>	i.	Moss
b.	<i>Cycas</i>	ii.	Pteridophyte

List-I		List-II	
c.	<i>Selaginella</i>	iii.	Alga
d.	<i>Sphagnum</i>	iv.	Gymnosperm

Choose the correct answer from the options given below [NEET (UG) 2022 (Phase 2)]

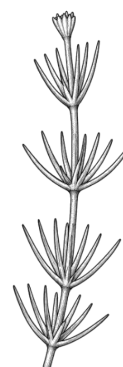
- (1) (a) - (ii), (b) - (iii), (c) - (i), (d) - (iv)
- (2) (a) - (iii), (b) - (i), (c) - (ii), (d) - (iv)
- (3) (a) - (iii), (b) - (iv), (c) - (ii), (d) - (i)
- (4) (a) - (iii), (b) - (ii), (c) - (i), (d) - (iv)

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Q.5 Read the following statements and identify the characters related to the alga shown in the diagram :

- A. It is a member of Chlorophyceae
- B. Food is stored in the form of starch
- C. It is monoecious plant showing oogonium and antheridium
- D. Food is stored in the form of laminarin or mannitol
- E. It shows dominance of pigments Chlorophyll a, c and Fucoxanthin

Choose the correct answer from the options given below : [NEET (UG) 2022 (Phase 2)]



- (1) C, D and E only (2) A and B only
- (3) A, B and C only (4) A, C and D only

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Q.6 An example of colonial alga is [NEET 2017]

- (1) *Volvox* (2) *Ulothrix*
- (3) *Spirogyra* (4) *Chlorella*

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Q.7 Which of the following algae produce Carrageen?

[NEET (UG) 2021]

- (1) Blue-green algae (2) Green algae
(3) Brown algae (4) Red algae

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Q.8 Which of the following algae contains mannitol as reserve food material?

[NEET (UG) 2021]

- (1) *Ulothrix* (2) *Ectocarpus*
(3) *Gracilaria* (4) *Volvox*

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Q.9 Which of the following pairs is of unicellular algae?

[NEET (UG) 2020]

- (1) *Gelidium* and *Gracilaria*
(2) *Anabaena* and *Volvox*
(3) *Chlorella* and *Spirulina*
(4) *Laminaria* and *Sargassum*

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Q.10 Floridean starch has structure similar to

[NEET (UG) 2020]

- (1) Amylopectin and glycogen
(2) Mannitol and algin
(3) Laminarin and cellulose
(4) Starch and cellulose

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Q.11 Which one is wrongly matched?

[NEET 2018]

- (1) Biflagellate zoospores – Brown algae
(2) Uniflagellate gametes – *Polysiphonia*
(3) Unicellular organism – *Chlorella*
(4) Gemma cups – *Marchantia*

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Q.12 Which one of the following statements is wrong?

[NEET 2016 (Phase 2)]

- (1) Algae increase the level of dissolved oxygen in the immediate environment.
(2) Algin is obtained from red algae, and carrageenan from brown algae.
(3) Agar-agar is obtained from *Gelidium* and *Gracilaria*.
(4) *Laminaria* and *Sargassum* are used as food.

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Q.13 Which one of the following statements is wrong?

[AIPMT 2015 (Cancelled)]

- (1) *Chlorella* and *Spirulina* are used as space food.
(2) Mannitol is stored food in Rhodophyceae.
(3) Algin and carrageenan are products of algae.
(4) Agar-agar is obtained from *Gelidium* and *Gracilaria*.

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Q.14 Male gametes are flagellated in

[AIPMT 2015 (Cancelled)]

- (1) *Ectocarpus* (2) *Spirogyra*
(3) *Polysiphonia* (4) *Anabaena*.

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Q.15 Which one of the following is wrong about *Chara*?

[AIPMT 2014]

- (1) Upper oogonium and lower round antheridium
(2) Globule and nucule present on the same plant
(3) Upper antheridium and lower oogonium
(4) Globule is male reproductive structure

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Q.16 Which one of the following shows isogamy with non-flagellated gametes?

[AIPMT 2014]

- (1) *Sargassum* (2) *Ectocarpus*
(3) *Ulothrix* (4) *Spirogyra*

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Q.17 An alga which can be employed as food for human being is :

[AIPMT 2014]

- (1) *Polysiphonia* (2) *Chlorella*
(3) *Ulothrix* (4) *Spirogyra*

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Q.18 Select the wrong statement

[NEET 2013]

- (1) In Oomycetes, female gamete is smaller and motile, while male gamete is larger and non-motile.
(2) *Chlamydomonas* exhibits both isogamy and anisogamy and *Fucus* shows oogamy.
(3) Isogametes are similar in structure, function and behaviour.
(4) Anisogametes differ either in structure, function or behaviour.

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Q.19 Syngamy can occur outside the body of the organism in

[NEET 2013 (Karnataka)]

- (1) mosses (2) algae (3) ferns (4) Fungi

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Q.20 Isogamous condition with non-flagellated gametes is found in [NEET 2013]

- (1) *Volvox* (2) *Fucus*
(3) *Chlamydomonas* (4) *Spirogyra*.

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Q.21 Monoecious plant of *Chara* shows occurrence of [NEET 2013]

- (1) upper antheridium and lower oogonium on the same plant
(2) upper oogonium and lower antheridium on the same plant
(3) antheridiophore and archegoniophore on the same plant
(4) stamen and carpel on the same plant.

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Q.22 Which one of the following is wrongly matched?

[NEET 2013 (Karnataka)]

- (1) *Spirogyra* - Motile gametes
(2) *Sargassum* - Chlorophyll
(3) Basidiomycetes - Puffballs
(4) *Nostoc* - Water blooms

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Q.23 Mannitol is the stored food in [AIPMT 2009]

- (1) *Porphyra* (2) *Fucus*
(3) *Gracilaria* (4) *Chara*

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Q.24 If you are asked to classify the various algae into distinct groups, which of the following characters you should choose? [AIPMT 2007]

- (1) Nature of stored food materials in the cell
(2) Structural organization of thallus
(3) Chemical composition of the cell wall
(4) Types of pigments present in the cell

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Q.25 Sexual reproduction in *Spirogyra* is an advanced feature because it shows [AIPMT 2003]

- (1) different sizes of motile sex organs
(2) same size of motile sex organs
(3) morphologically different sex organs
(4) physiologically differentiated sex organs.

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Q.26 A student observed an alga with chlorophyll a, d and phycoerythrin, it should belong to

[AIPMT 2000]

- (1) Phaeophyta (2) Rhodophyta
(3) Chlorophyta (4) Bacillariophyta

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	3	3	2	3	3	1	4	2	3	1	2
Ques.	12	13	14	15	16	17	18	19	20	21	22
Ans.	2	2	1	3	4	2	1	2	4	2	1
Ques.	23	24	25	26							
Ans.	2	4	4	2							