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Reg. No. :

Code No. : 11645 E Sub. Code : SMBO 12

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2018.

First Semester

Botany – Main

ALGAE AND BRYOPHYTES

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. It is an example for procaryote alga
(a) Volvox (b) Chlorella
(c) Chara (d) Nostoc
2. Coenobium type of colony is seen in this alga
(a) Nostoc (b) Volvox
(c) Caulerpa (d) Spirulina

3. The female sex organ of chara is called as _____.

- (a) nucule
- (b) globule
- (c) amylum star
- (d) archegonium

4. The branches which bear the male and female sex organs in sargassum are _____.

- (a) conceptacle
- (b) receptacle
- (c) paraphysis
- (d) air bladder

5. The algae which is used in space research is

- (a) chlamydomonas
- (b) volvox
- (c) chlorella
- (d) nostoc

6. Carrageenin is extracted from this alga.

- (a) Sargassum (b) Gracilaria
- (c) Chondrus (d) Gelidium

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7. _____ water is suitable for mass culture of Spirulina.

- (a) Brackish
- (b) Rain water
- (c) River water
- (d) None of these

8. _____ is called as Cyanobacteria.

- (a) Volvox
- (b) Nostoc
- (c) Chara
- (d) Caulerpa

9. The thallus of Merchantia has _____.

- (a) Haploid
- (b) Diploid
- (c) Triploid
- (d) None of these

10. The rhomboidal area found on the dorsal surface of the Merchantia thallus are called _____.

- (a) Gemma cup
- (b) Areolae
- (c) Scales
- (d) Midrib

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Describe the structure of volvox colony.

Or

(b) List out the general characters of Phaeophyceae.

12. (a) Describe the internal structure of Gracilaria Cystocarp.

Or

(b) Explain the external structure of chara thallus with diagram.

13. (a) How can be Gracilaria cultured using raft culture technique?

Or

(b) Write the extraction method of carrageenin.

14. (a) Give a short note on external morphology of Nostoc.

Or

(b) Give the therapeutic properties of Spirulina.



15. (a) Write about the general characters of Bryophytes.

Or

- (b) Describe the internal structure of Marchantia thallus.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain with suitable examples, the life cycle patterns found in algae.

Or

- (b) Write in detail about the thallus structure and methods of reproduction in Caulerpa.

17. (a) Explain the method of sexual reproduction of Chara.

Or

- (b) Describe the life cycle of Sargassum.

18. (a) Discuss the method of extraction of Agar-Agar. Add a note on its uses.

Or

- (b) Write an essay on the economic importance of Algae.

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19. (a) Write in detail about the techniques related to the culture of spirulina, harvesting and drying.

Or

- (b) Explain the methods of mass culture of Nostoc.

20. (a) How bryophytes have been classified by Rothmaler?

Or

- (b) Describe with diagrams, the longitudinal sectional view of anteridiophore and archegoniophore of Marchantia.

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