RANIGANJ GIRLS' COLLEGE

MODEL QUESTIONS-II

BOTANY [HONOURS]

SEMESTER-I

PAPER- CC-I (Phycology and Lichenology) Course code: BSCHBOTC101

F.M: 40 Time: 2 Hours

The figure in the right-hand margin indicates marks.

Candidates are required to give their answer in their own words as far as practicable.

- 1. Answer any five questions of the following:
 - (a) Write down the source of agar-agar.
 - (b) Write down the source of caragenine.
 - (c) Write down the pigments present in BGA.
 - (d) Write down the pigments present in Rhodophyceae.
 - (e) Define eye-spot.
 - (f) Define autogamy.
 - (g) Name two unicellular algae under the class Cyanophyceae.
 - (h) Name one non-heterocystous BGA.
 - (i) Write down the principle reserve food material of class Cyanophyceae,

Rhodophyceae and Phaeophyceae.

- (j) Name the alga responsible for red rust of tea.
- (k) Define haplo-diplobiontic life cycle.
- (l) Define akinete.
- (m)Name one cenocytic alga.
- (n) Name two pollution indicator algae.
- (o) Name the non-plastidial pigment present in Trentepohlia.
- (p) Define amylum star.
- (q) What is cryptostoma?
- 2. Answer any five questions of the following:
 - (a) Define cystocarp.
 - (b) What is synzospore?
 - (c) Define diatomaceous earth/diatomite.
 - (d) Define saxiculous lichen.
 - (e) Write the name of a cryophytic and an epizoic algae.
 - (f) What is gongrosira stage?
 - (g) Distinguish between zygospore and oospore.
 - (h) What is SCP.
 - (i) What is ooplasm?
 - (j) Define Pericarp. Where do you find it?

 $2 \times 5 = 10$

 $1 \times 5 = 5$

- (k) Name the lichen from which orcinol is obtained.
- (l) Define cryo algae.
- (m)Name one macrandous and one nanandrous species of Oedogonium.
- (n) What is algin. Mention its source.
- (o) Mention role of algae in biofuel production.
- (p) What is wanderplasm?
- (q) What is Macdonald and Pfitzer law?
- 3. Answer any three questions of the following:
 - (a) Give a brief account of sexual reproduction of nannandrous species of Oedogonium.

5×3=15

 $10 \times 1 = 10$

- (b) Write a brief note on the 'Evolution of sex in algae'.
- (c) Give an account of the cell structure of Bacillariophyceae.
- (d) Write a short note on thallus organization in algae with example.
- (e) Discuss briefly about 'Theory of Endosymbiosis'.
- 4. Answer any one questions of the following:
 - (a) What are the different stages in the life cycle of Polysiphonia? Explain with suitable illustrations.
 3+7=10
 - (b) Describe the different modes of sexual reproduction found in Chlamydomonas with
 - neat labeled sketches. 6+4=10 (c) Mention four salient features of Phaeophyceae. Describe the post-fertilization changes in Polysiphonia with labeled sketches. 2+8=10
 - (d) What are the bases of the classification of algae proposed by Lee (2008). Give an

account of this classification up to classes.