

[Time: Three Hours]

[Marks. 100]

Please check whether you have got the right question paper.

- N.B:** i) All questions are compulsory  
 ii) Figures to the right indicate full marks  
 iii) Draw neat and labeled diagrams whenever necessary

Q.1 A. Choose the **correct option** from the following: 10

- a) Reserve food material in chlorophyta is \_\_\_\_\_.  
 i) oil ii) proteins iii) fats iv) starch
- b) *Spirogyra* belongs to order \_\_\_\_\_.  
 i) oscillatoriales ii) zygnematales iii) heterosiphonales iv) ectocarpales
- c) The chloroplast of \_\_\_\_\_ is spiral shaped  
 i) *Volvox* ii) *Nostoc* iii) *Spirogyra* iv) *Zygnema*
- d) *Nostoc* reproduces by \_\_\_\_\_ methods.  
 i) vegetative and asexual ii) sexual and asexual iii) vegetative and sexual  
 iv) vegetative, sexual and asexual
- e) The cell wall of the fungal hyphae is made up of \_\_\_\_\_.  
 i) chitin ii) pectin iii) cellulose iv) lignin
- f) \_\_\_\_\_ are non motile spores formed in sporangia on sporangiophores.  
 i) Aplanospores ii) Zoospores  
 iii) Conidiospores iv) Zygosporangia
- g) Fungi growing on dung of various animals is known as \_\_\_\_\_.  
 i) obligate parasite ii) facultative parasite iii) coprophilous iv) predacious
- h) Genus *Riccia* is a \_\_\_\_\_.  
 i) bryophyte ii) pteridophyte iii) fungi iv) algae
- i) The antherozoids of *Riccia* are \_\_\_\_\_.  
 i) quadriflagellate ii) uniflagellate iii) biflagellate iv) multiflagellate
- j) In *Riccia*, the sporophyte is made up of \_\_\_\_\_.  
 i) foot ii) seta iii) capsule iv) foot, seta, capsule

B. Answer the following in **one sentence**:

- What is heterocyst?
- What is mycelium?
- State the different parts of *Rhizopus* thallus.
- Name the male and female sex organs of *Riccia*.
- What are the different pigments found in chlorophyta.

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Q 2 Answer **any two** from the following :

- Explain sexual reproduction in *Spirogyra*.
- Describe the structure of *Nostoc* colony, single filament and single cell.
- Explain different shapes of chloroplasts observed in Chlorophyta.
- Give a brief account of economic importance of algae.

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Q.3 Answer **any two** from the following:

- Give a detailed account of asexual reproduction of *Rhizopus*.
- Discuss the sexual reproduction of *Aspergillus*.
- Describe the different modes of nutrition in fungi.
- Give an account of economic importance of fungi.

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Q.4 Answer **any two** from the following:

- Describe the structure of sporophyte in *Riccia*.
- Give the systematic position of *Riccia* and explain the internal structure of its thallus.
- Write a detailed note on general characters of Hepaticae.
- Describe the gametophytic generation of *Riccia*.

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Q.5 Write short notes on (**any four**):

- Vegetative cell of *Spirogyra*
- Systematic position of *Nostoc*
- Harmful effects of Fungi
- Gametangia of *Rhizopus*
- Fertilization in *Riccia*
- Spore and its germination in *Riccia*

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