

Q.P. Code :19327

[Time: Three Hours]

[ Marks:100]

Please check whether you have got the right question paper.

- N.B:
1. **All** questions are **compulsory**.
  2. **Figures** to the right indicate **full marks**.
  3. Draw neat and labelled **diagrams** wherever **necessary**.

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

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- Alternation of generation in *Spirogyra* is \_\_\_\_\_.  
i) haplontic ii) diplontic iii) haplodiplontic iv) diplohaplontic
- Sexual reproduction is absent in \_\_\_\_\_.  
i) *Zygnema* ii) *Spirogyra* iii) *Chlamydomonas* iv) *Nostoc*
- Spirogyra* belongs to order \_\_\_\_\_.  
i) Zygnematales ii) Oscillatoriales iii) Ectocarpales iv) Heterosiphonales
- Reserve food materials in chlorophyta is \_\_\_\_\_.  
i) oils & proteins ii) proteins & starch iii) oils, starch & proteins iv) starch
- Foot cell in *Aspergillus* is \_\_\_\_\_ shaped.  
i) T ii) U iii) L iv) C
- Aspergillus* shows \_\_\_\_\_ type of fruiting body.  
i) Cleistothecium ii) Hormogonium iii) Apothecium iv) Perithecium
- The cell wall of fungi is made up of \_\_\_\_\_.  
i) cellulose ii) pectin iii) chitin vi) lignin
- Aquatic species of *Riccia* is \_\_\_\_\_.  
i) *Riccia discolor* ii) *Riccia fluitans* iii) *Riccia himalayensis* iv) None of the above
- The antherozoids of *Riccia* are \_\_\_\_\_.  
i) monoflagellate ii) biflagellate iii) quadriflagellate iv) multiflagellate
- Riccia* shows presence of \_\_\_\_\_ on dorsal side of thallus.  
i) sex organs ii) scales iii) rhizoids iv) air pores

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

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- What is Heterocyst?
- Name the type of chloroplast found in *Spirogyra*.
- What is a zygospore?
- Name the asexual spores in *Aspergillus*
- What are persistent apices in *Riccia*

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

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- Discuss sexual reproduction in *Spirogyra*.
- Give general characters of chlorophyta.
- Describe the structure of *Nostoc* colony, single filament and a single cell.
- Give an account of range of thallus in chlorophyta.

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

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- Explain life cycle of *Aspergillus* with the help of a schematic diagram.
- Explain thallus structure of *Rhizopus*. Add a note on its systematic position.
- Describe harmful activities of fungi.
- Give an account of mode of nutrition in fungi.

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

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- Describe the structure of sex organs in *Riccia*.
- Give the systematic position of *Riccia* and describe the external morphology of the thallus.
- Describe the structure of sporophyte in *Riccia*.
- Give the general characters of Hepaticae.

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

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- Algae as biofertilizer
- Vegetative cell of *Spirogyra*
- Fungi as food
- Haustoria
- Fertilization in *Riccia*
- Diagrammatic representation of life cycle in *Riccia*.

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