

**GOVERNMENT AUTONOMOUS COLLEGE, ROURKELA**

**DEPARTMENT OF BIOTECHNOLOGY**

**QUESTION BANK**

**PAPER- C 2**

**TITLE: PLANT PHYSIOLOGY AND DIVERSITY**

**1. Fill in the blanks:**

- a. A non-motile spore in which the spore wall is not derived from the wall of its present cell is \_\_\_\_\_.
- b. Luxuriant growth of algae in water often imparting colour to the water is called \_\_\_\_\_.
- c. Motile structures are absent in the members of \_\_\_\_\_ and blue-green algae.
- d. Fritsch divided algae into \_\_\_\_\_ classes.
- e. Mycelium is absent in \_\_\_\_\_.
- f. Fungi when live symbiotically with algae, are called \_\_\_\_\_.
- g. Lichens growing on rocks are called \_\_\_\_\_.
- h. The nurse cells are present in the sporogonium of \_\_\_\_\_.
- i. Elaters are \_\_\_\_\_ in nature.
- j. Air gun mechanism of capsule dehiscence occurs in \_\_\_\_\_.

**2. Very short answer questions:**

- a. Name any two bryophytes where archesporium is endothelial in origin.
- b. In which fungus the thallus is unicellular and holocarpic?
- c. Name any three modifications of fungal mycelium.
- d. Name the lichen from which orchil dye is obtained.
- e. Name the type of plant formed by the association of algae and fungi.

**3. Short answer questions:**

- a. Why are lichens generally not found in cities? What conclusion can you draw from this as to the physiology of lichens?
- b. What is symbiosis? How are the lichens are best example of symbiosis?
- c. Write a note on internal structure of lichen thallus.
- d. In what ways can algae be of use to space travellers?

- e. Why is *Chlorella* considered to be more useful in experimental work than leaves of higher plants?

**4. Long answer questions:**

- a. Write an essay on the economic importance of algae.
- b. Describe the form and structure of lichens. Comment briefly on their ecological importance.
- c. What are lichens? Describe various modes of their reproduction.
- d. Give an account of the habit and habitat of the algal forms which you have studied.
- e. How do the algae perennate? Write some of the perennating bodies in the algae that you know.