



# LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

U.G. DEGREE EXAMINATION – ALLIED  
FIRST SEMESTER – NOVEMBER 2024  
UPB 1301 – PLANT DIVERSITY - I



Date: 20-11-2024

Dept. No.

Max. : 100 Marks

Time: 09:00 am-12:00 pm

## SECTION A - K1 (CO1)

**Answer ALL the Questions**

**(10 x 1 = 10)**

### 1. Fill in the blanks

- a) The symbiotic relationship between algae and fungi is called \_\_\_\_\_.
- b) In *Ectocarpus*, the reserve food is a type of carbohydrate called \_\_\_\_\_.
- c) The study of algae is known as \_\_\_\_\_.
- d) Bryophytes are called \_\_\_\_\_ of the plant kingdom.
- e) Cereals are rich source of \_\_\_\_\_.

### 2. State whether the following statements are TRUE or FALSE

- a) The primary host of *Puccinia* is wheat.
- b) The leaves are dimorphic in *Cycas*.
- c) Chilli belongs to the family Rubiaceae.
- d) Cardamom belongs to the family Zingiberaceae.
- e) The active principle of Goose berry is ascorbic acid.

## SECTION A - K2 (CO1)

**Answer ALL the Questions**

**(10 x 1 = 10)**

### 3. Choose the correct answer

- a) *Puccinia graminis* causing  
a. black rust    b. brown rust    c. yellow rust    d. white rust
- b) In Pteridophytes, the group of sporangia together is called as \_\_\_\_\_  
a. cone    b. strobilus    c. sori    d. gemma cup
- c) Hesperidium is a type of fruit seen in  
a. Rutaceae    b. Lamiaceae    c. Annonaceae    d. Poaceae
- d) *Tectona grandis* is a scientific name for  
a. Sal    b. sandal    c. red sandal    d. teak
- e) The scientific name for Turmeric is  
a. *Curcuma longa*    b. *Syzygium aromaticum*    c. *Shorea robusta*    d. *Cannabis sativa*

### 4. Answer the following, each in about 50 words

- a) Compare unilocular and plurilocular sporangium of *Ectocarpus*.
- b) What is sporophyll?
- c) What is caryopsis?
- d) Write the scientific name and useful part of coconut.
- e) Indicate the biological source and active principle of *Ocimum sanctum*.

## SECTION B - K3 (CO2)

**Answer any TWO of the following in 500 words**

**(2 x 10 = 20)**

**Draw diagrams / flowcharts wherever necessary**

- 5. Demonstrate the structure of the Gametophyte with sporophyte of *Funaria*.
- 6. Write the economic importance of Algae.
- 7. Interpret the characteristic features of Annonaceae.
- 8. Write the scientific name, family, useful parts, and uses of beetroot and papaya.

**SECTION C – K4 (CO3)**

	<b>Answer any TWO of the following in 500 words</b> <b>Draw diagrams / flowcharts wherever necessary</b>	<b>(2 x 10 = 20)</b>
9.	Analyze the herbarium techniques.	
10.	Explain the microsporophyll of <i>Cycas</i> .	
11.	Describe the characteristic features of the family Rutaceae.	
12.	Enlist the economic importance of fungi.	

**SECTION D – K5 (CO4)**

	<b>Answer any ONE of the following in 1000 words</b> <b>Draw diagrams / flowcharts wherever necessary</b>	<b>(1 x 20 = 20)</b>
13.	Compare the internal characteristic features of the normal and coralloid root of <i>Cycas</i> .	
14.	Specify any two beverages, medicinal plants, spices and condiments with their scientific name, family, useful parts, and uses.	

**SECTION E – K6 (CO5)**

	<b>Answer any ONE of the following in 1000 words</b> <b>Draw diagrams / flowcharts wherever necessary</b>	<b>(1 x 20 = 20)</b>
15.	Summarize the life cycle of <i>Puccinia</i> .	
16.	Assess the floral characters of <i>Oryza sativa</i> . Add a note on its economic importance.	

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