LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **ADVANCED ZOOLOGY AND BIOTECHNOLOGY**

FIRST SEMESTER – **NOVEMBER 2022**

UPB 1301 – PLANT DIVERSITY - I

Date: 01-12-2022 Dept. No. Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

	SECTION A	**(20 marks)**	
Answer ALL the Questions			
1.	**Choose the correct answer**	**(5 x 1 = 5)**	
a)	In Pteridophytes, the group of sporangia is called as_____ i)cone ii) strobilus iii) sorus iv) gemma cup	K1	CO1
b)	Iodine is obtained from the brown alga _____. i)*Gracillaria* ii) *Gelidium* iii) *Laminaria* iv) *Chlorella*	K1	CO1
c)	The cell wall of fungi contains _____ i)chitin ii) chlorophyll iii) pectin iv) cellulose	K1	CO1
d)	_____ called Amphibians of the plant kingdom. i)Algae ii) Fungi iii) Bryophytes iv) Pteridophytes	K1	CO1
e)	Canada balsam is obtained from _____. i)*Cycas* sp ii) *Taxus* sp iii) *Cedrus* sp iv) *Abies* sp	K1	CO1
2.	**Complete the following sentences**	**(5 x 1 = 5)**	
a)	Fritsch classification of algae is based on pigments, flagella and _____.	K1	CO1
b)	A plant root-and-fungus association is called a _____.	K1	CO1
c)	The negatively geotropic roots of *Cycas* are called the _____ roots.	K1	CO1
d)	The example for water fern _____ .	K1	CO1
e)	Common name for Sphagnum is	K1	CO1
3.	**Answer the following, each within 50 words**	**(5 x 2 = 10)**	
a)	Mention the pigments of Algae.	K2	CO1
b)	Comment on the symbiotic relationship between algae and fungi.	K2	CO1
c)	Write a note on sporophyll.	K2	CO1
d)	Distinguish between unilocular and plurilocular sporangium	K2	CO1
e)	Compare legitimate and illegitimate names.	K2	CO1

	SECTION B		
Answer any TWO of the following each within 500 words. Draw diagrams / flowcharts wherever necessary.			**(2 x 10 = 20)**
4.	Enlist the general characteristics of Bryophytes	K3	CO2
5.	Enumerate the characteristic features of the family Euphorbiaceae.	K3	CO2
6.	Illustrate the L.S of the flower and its parts of *Annona squamosa* along with a floral diagram.	K3	CO2
7.	Sketch out the points, must be noted in the field notebook during herbarium preparations. Add a note on the uses of herbaria.	K3	CO2
	SECTION C		
Answer any TWO of the following each within 500 words. Draw diagrams / flowcharts wherever necessary.			**(2 x 10 = 20)**
8.	Illustrate and analyze the salient features of Rutaceae with examples.	K4	CO3
9.	Explain the life cycle of *Ectocarpus*.	K4	CO3
10.	Draw and describe the structure of Hesperidium and Caryopsis.	K4	CO3
11.	Cite the scientific name, family, useful parts, and uses of rice, Cotton and Jute.	K4	CO3
	SECTION D		
Answer any ONE of the following within 1000 words. Draw diagrams / flowcharts wherever necessary.			**(1 x 20 = 20)**
12.	Describe in detail the life cycle of *Puccinia*.	K5	CO4
13.	Mention the scientific name, family, active principle, and its uses of goose berry, ginger, nilavembu and tulsi.	K5	CO4
	SECTION E		
Answer any ONE of the following each within 1000 words. Draw diagrams / flowcharts wherever necessary.			**(1 x 20 = 20)**
14.	List out the characteristic features of Fungi and Algae.	K6	CO5
15.	Mention the common name, scientific name, family, useful parts, and uses of any two vegetables, fruits, non-alcoholic beverages and pulses.	K6	CO5

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