LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **PLANT BIOLOGY AND PLANT BIOTECHNOLOGY**

THIRD SEMESTER – **NOVEMBER 2024**

UPB 3501 – FUNGI

Date: 08-11-2024 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)	Fungal cell walls are primarily composed of _____ .	
b)	*Albugo* belongs to the division _____ .	
c)	*Polyporus*, a bracket fungus, obtains its nutrients through_____.	
d)	Penicillin, a widely used antibiotic, is derived from the fungus _____.	
e)	Lichens are classified into three main groups: Crustose, fruticose and _____ .	
2.	**State whether the following statements are TRUE or FALSE**	
a)	All fungi are obligate parasites.	
b)	*Rhizopus* has coenocytic septate.	
c)	*Colletotrichum* is a facultative parasite.	
d)	Mycorrhizal fungi are obligate parasites.	
e)	Lichens can reproduce sexually through spores.	
	SECTION A - K2 (CO1)	
	Answer ALL the Questions	**(10 x 1 = 10)**
3.	**Choose the correct answer**	
a)	Which class of fungi includes mushrooms and toadstools? i) Phycomycetes ii) Ascomycetes iii) Basidiomycetes iv) Deuteromycetes	
b)	What is the primary method of reproduction in *Saccharomyces*? i) Fission ii) Budding iii) Fragmentation iv) Sporulation	
c)	Which of the following is a host plant for *Puccinia*? i) Wheat ii) Corn iii) Sugarcane iv) All of the above	
d)	What is the primary role of fungi in the ecosystem? i) Primary producers ii) Decomposers iii) Parasites iv) Symbionts	
e)	How do lichens typically reproduce asexually? i) Spores ii) Fragmentation iii) Budding iv) Fission	
4.	**Answer the following, each in about 50 words**	
a)	Comment on imperfect fungi.	
b)	Mention the structure of *Rhizopus*.	
c)	Enlist the reproductive features of *Colletotrichum*.	
d)	What are edible fungi?	
e)	Lichens as pollution indicators – Comment.	
	SECTION B - K3 (CO2)	
	Answer any TWO of the following in 500 words	**(2 x 10 = 20)**

	Draw diagrams / flowcharts wherever necessary
5.	Write an account on mode of nutrition in fungi.
6.	Describe the structure of *Neurospora*.
7.	Explain asexual reproduction in *Peziza*.
8.	Give an account on the types and importance of mycorrhiza.
	SECTION C – K4 (CO3)
	Answer any TWO of the following in 500 words (2 x 10 = 20) **Draw diagrams / flowcharts wherever necessary**
9.	Discuss the classification of fungi by Alexopolus, 1962.
10.	Describe the structure of *Aspergillus* with a neatly labelled diagram.
11.	Write an account on YAC vector.
12.	Explain the nature of association of phycobiont and mycobiont in lichens.
	SECTION D – K5 (CO4)
	Answer any ONE of the following in 1000 words (1 x 20 = 20) **Draw diagrams / flowcharts wherever necessary**
13.	Write an essay on reproduction in fungi with neatly labelled diagrams.
14.	Elaborate on the role of fungi in industrial processes with examples.
	SECTION E – K6 (CO5)
	Answer any ONE of the following in 1000 words (1 x 20 = 20) **Draw diagrams / flowcharts wherever necessary**
15.	Write an essay on the life cycle of *Puccinia*.
16.	Discuss in detail about the structure, vegetative and asexual reproduction of lichens.

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