



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – NOVEMBER 2022

UPB 3501 – FUNGI

Date: 24-11-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

SECTION - A

Answer ALL the Questions

20 marks

1. Choose the correct answer (5 x 1 = 5)

a)	Fungi usually store reserve food material in the form of _____ i) Starch ii) Lipid iii) Glycogen iv) protein	K1	CO1
b)	<i>Rhizopus stolonifer</i> belongs to the class _____ i) Oomycetes ii) Ascomycetes iii) Zygomycetes iv) Basidiomycetes	K1	CO1
c)	The red rot of sugarcane is caused by _____ i) <i>Puccinia</i> ii) <i>Albugo</i> iii) <i>Colletotrichum</i> iv) <i>Polyporus</i>	K1	CO1
d)	Sir Alexander Fleming is known for discovering _____ i) budding in yeast ii) Penicillin iii) Streptomycin iv) Cleistothecium	K1	CO1
e)	Which of the following is not a fruiting body of Lichens? i) <i>Apothecium</i> ii) <i>Perithecium</i> iii) <i>Pycnidium</i> iv) <i>Sclerotium</i>	K1	CO1

2. Complete the following sentences (5 x 1 = 5)

a)	Aseptate and multinucleate hyphae is called _____.	K1	CO1
b)	Aflatoxin is produced by _____	K1	CO1
c)	Fungi growing on dung is called as _____	K1	CO1
d)	The seeds of _____ cannot germinate in the absence of mycorrhiza.	K1	CO1
e)	Lichens growing on rocks are called _____	K1	CO1

3. Answer the following, each within about 50 words (5 x 2 = 10)

a)	List any 4 general features of fungi.	K2	CO1
b)	Express with a diagram, the process of clamp connections.	K2	CO1
c)	Comment on budding in yeast.	K2	CO1
d)	Mention the uses of YAC vector.	K2	CO1
e)	Write a note on foliose lichens.	K2	CO1

SECTION - B

Answer any TWO of the following each within 500 words. Draw diagrams / flowchart wherever necessary. (2 x 10 = 20 marks)

4.	Explain the lifecycle of <i>Albugo</i> .	K3	CO2
5.	Illustrate and explain the steps involved in Crozier formation.	K3	CO2
6.	Enumerate the salient features of ectomycorrhiza and endomycorrhiza.	K3	CO2
7.	Relate the different types of external structures present on the lichen thallus.	K3	CO2

SECTION - C

Answer any TWO of the following each within 500 words. Draw diagrams / flowchart wherever necessary. (2 x 10 = 20 marks)

8.	Analyse the types of asexual reproduction in fungi.	K4	CO3
9.	Explain the process of sexual reproduction in <i>Neurospora</i> .	K4	CO3
10.	Compare the structural properties of different fruiting bodies of Ascomycetes.	K4	CO3
11.	Correlate the details on the infection phase of <i>Colletotrichum</i> .	K4	CO3

SECTION - D

Answer any ONE of the following within 1000 words. Draw diagrams / flowchart wherever necessary. (1 x 20 = 20 marks)

12.	Evaluate the lifecycle patterns in fungi with examples.	K5	CO4
13.	Summarise the economic importance of fungi.	K5	CO4

SECTION - E

Answer any ONE of the following within 1000 words. Draw diagrams / flowchart wherever necessary. (1 x 20 = 20 marks)

14.	Compose the steps involved in the industrial production of penicillin.	K6	CO5
15.	Compile the details on the internal structures of the lichen thallus and list the different types of lichens.	K6	CO5

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