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3 (Sem-2/CBCS) BOT HC 1

2022

BOTANY

(Honours)

Paper : BOT-HC-2016

(Mycology and Phytopathology)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions as directed :
(any seven) 1×7=7
 - (a) Name *one* heteroecious fungus.
 - (b) What is fungi imperfecti ?
 - (c) What is dolipore ?
 - (d) Write only *one* difference between whiplash and tinsel flagella.
 - (e) What is obligate parasite ?

Contd.

- (f) In fungi rhizomorph stands for what ?
- (g) What are planospores ?
- (h) Define karyogamy.
- (i) What is the causal organism of black wart or wart disease of potato ?
- (j) Resting spores of fungi are meant for what ?

2. Answer the following in brief: *(any four)*
2×4=8

- (a) Distinguish between hyphae and mycelia.
- (b) Distinguish between heterokaryotic and dikaryotic phase in fungi.
- (c) What is Bioluminescence ?
- (d) Difference between conidia and chlamydospores.
- (e) What are the basic differences of gametangial contact and gametangial copulation ?
- (f) Distinguish between saprophytic and parasitic organisms.
- (g) Define somatogamy
- (h) Define heterothallism.

3. Write short notes on **any three** of the following eight questions : $5 \times 3 = 15$
- (a) Methods of asexual reproduction in fungi.
 - (b) Write *any one* modern classification of fungi.
 - (c) Methods of sexual reproduction in Rhizopus.
 - (d) Role of fungi in industry.
 - (e) Development of basidia and basidiospores in basidiomycetes.
 - (f) Diplobiontic life-cycle of saccharomyces
 - (g) Salient features of deuteromycetes
 - (h) Fructification in fungi
4. Answer **any three** of the following questions : $10 \times 3 = 30$
- (a) Write a brief account of the degeneration of sex in fungi.
 - (b) With the help of neat labelled diagram describe the development of ascus and ascospores in Ascomycetes.

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- (c) What is the causal organism of late blight disease of potato ? Write a brief account of symptoms, disease cycle and control measures of it.
 - (d) Discuss briefly different methods of sexual reproduction observed in lower group of fungi.
 - (e) Discuss in detail the life history of *Puccinia graminis*.
 - (f) "Mushroom culture and its importance for society" — Discuss.
 - (g) Lichens are the best example of symbiosis." justify the statement.
 - (h) Write a brief account of the life cycle of synchytrium.
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