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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 : 5×3=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 : 10×3=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.

- (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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