

2021
Department of Botany
Kaliachak College
BOTANY (Honours)
Paper Code: JA
[New Syllabus]

Full marks: 14

Time: Twenty Minutes

*Choose the correct answer.
Each question carries 1 mark.*

- 1 Hartig net is found in —
 - (A) *Arbustus* sp.
 - (B) *Synchytrium* sp.
 - (C) *Ascobolus* sp.
 - (D) *Rhizoctonia* sp.

2. Male sex organ of *Chara* is —
 - (A) Corona
 - (B) Protonema
 - (C) Nucule
 - (D) Globule

- 3 Full form of MIC is —
 - (A) Minimal Ion concentration
 - (B) Minimum Ion concentration
 - (C) Minimal Inhibitory concentration
 - (D) Minimum Inhibitory concentration

- 4 The following is the ascomycetous mushroom —
 - (A) *Marchella esculenta*
 - (B) *Pleurotus sajor-caju*
 - (C) *Agaricus bisporus*
 - (D) *Lentinula edodes*

- 5 Storage food of red algae is —
- (A) Starch
 - (B) Cyanophycean starch
 - (C) Floridean starch
 - (D) Laminarin
- 6 Agar-agar is obtained from —
- (A) *Gelidium* sp.
 - (B) *Polysiphonia* sp.
 - (C) *Fucus* sp.
 - (D) *Laminaria* sp.
- 7 The following is the prokaryotic alga —
- (A) *Anabaena*
 - (B) *Coleochaete*
 - (C) *Chara*
 - (D) *Polysiphonia*
- 8 Three components of a disease triangle are —
- (A) Host, Pathogen, Symptom
 - (B) Host, Infection, Pathogen
 - (C) Host, Environment, Pathogen
 - (D) Pathogen, Infection, Environment
- 9 Which one of the following is major pigment of chlorophyta —
- (A) Chlorophyll-a, c
 - (B) Chlorophyll-a, b
 - (C) Chlorophyll-a, e
 - (D) Fucoxanthin
- 10 The following is the systematic fungicide —
- (A) Benomyl
 - (B) Ferbam
 - (C) Bordeaux mixture
 - (D) Burgundy mixture
- 11 Asexual reproduction of lichen is form through —
- (A) Fragmentation
 - (B) Soredium
 - (C) Ascospore
 - (D) Hyphospore

12. Agar-agar is obtained from —

- (A) *Laminaria* sp.
- (B) *Chlorella* sp.
- (C) *Gelidium* sp.
- (D) *Nostoc* sp.

13. Establishment of pathogen within host is termed as —

- (A) Infection
- (B) Inoculum
- (C) Penetration
- (D) Symptom

14. Lichen is the symbiotic association between —

- (A) Algae and Bryophyta
- (B) Algae and Fungi
- (C) Angiosperms and Blue-green algae
- (D) Gymnosperms and Fungi

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Department of Botany

Kaliachak College

BOTANY (Honours)

Paper Code: IB

[New Syllabus]

Full marks: 56

Time: Two Hours Forty Minutes

The figure in the margin indicate full marks

Group: A

- 1 Answers any *two* of the following : 4×2=8
- (i) Differentiate between endemic, epidemic, pandemic and sporadic diseases.
Write down the limitations of Koch's Postulates. 2+2=4
- (ii) Write the fungal source and use of : 2+2=4
- (a) amylase
- (b) Tryptophan
- (iii) Distinguish between primary and secondary inoculum. 4
- (iv) What is local acquired resistance and systemic acquired resistance?
2+2=4
- 2 Answers any *two* of the following : 10×2=20
- (i) Write the causal organism, symptoms, disease cycle and control measure
of "stem rot of jute." 1+2+5+2=10
- (ii) What is phytoalexins? Write an explanatory note on it. 2+8=10
- (iii) What do you mean by button stage? Illustrate the different parts of a
mature basidiocarp in *Agaricus*. 2+8=10
- (iv) With the help of suitable diagrams describe the different types of
fructification in Ascomycetes. 10

Group - B

1 . Answer any *two* of the following :

4×2=8

- (i) Distinguish between macrandrous and nannandrous species of *Oedogonium*.
- (ii) Discuss the economic importance of Lichen.
- (iii) Write algal source and use of the following —
 - (a) Agar
 - (b) Algin
- (iv) Write down the major types of algal thalli.

2 Answer any *two* of the following :

10×2=20

- (i) Define lichen. Briefly describe different morphological types of lichen with example. Comment on the reproductive structure of Crustose Lichen.
2+5+3=10
- (ii) Give an account of the post fertilization changes of *Polysiphonia*. Why is the life cycle of *Polysiphonia* triphasic in nature?
7+3=10
- (iii) Discuss on the origin and evolution of sex in algae. 10
- (iv) What is heterocyst? Describe the ultrastructure of heterocyst. Comment on its role in nitrogen fixation.
2+6+2=10