Kaliganj Govt. College

Mid Term Examination
2016
Botany (Honours)
Part –I

Full Marks = 50 Time = 2 hours

Group –A [Algae & Fungi]

Q.1. Answer any five of the following: 1 x 5 = 5

a) Name one alga used in biotechnology.
b) Write the pigment composition of Rhodophycean algae.
c) Write down two functions of heterocyst.
d) Draw the structure of predominant compound found in fungal cell wall.
e) With example define holocarpic fungus.
f) Write the scientific name of 'bread mold'.

Q.2. Answer short notes on any two of the following: 4 x 2 = 8

a) Auxospore formation in Centrales.
b) Structure of Globule and Nucule of *Chara*.
c) Aflatoxin
d) Structure and development of fruit bodies in *Ascobolus*.

Q.3. Answer any one of the following: 12 x 1 = 12

a) Discuss sexual reproduction in nannandrous species of *Oedogonium* with neat sketches. Add a note on economic importance of algae. 8 + 4 = 12

b) Schematically represent Ainsworth's Classification (1973) of fungi upto classes with characters and examples. What is dikaryotic hyphae and where it is found ? 10 + 2 = 12

Group –B [Microbiology & Plant Pathology]

Q.1. Answer any three of the following: 1 x 3 = 3

a) Name one human disease caused by Prion and one plant disease caused by a viroid.
b) Mention two differences of Archeaea and Bacteria with respect to their cell wall.
c) Differentiate Sign and Symptom.
d) Name the disease caused 'Bengal Famine'. Mention the Pathogen.
e) What do you mean by Epiphytotic Disease?
f) Distinguish Biotroph and Necrotroph.

Q.2. Answer any two of the following: 6 x 2 = 12

a) Draw and Describe the physico-chemical structure of Influenza Virus. State the uniqueness of its Genome. 4 + 2 = 6

b) White a short note on transmission of plant virus by various agents.

c) Describe different stages of Bacterial growth curve. What do you mean by generation time? 4 + 2 =6

d) With proper labelling draw the Flagella of a Gram Negative bacteria and the Endospore of a Gram Positive Bacterium. 3 + 3 =6

Q.3. Answer any one of the following: 10 x 1 = 10

a) With Suitable diagrams Differentiate between Lytic and Lysogenic cycle. How the Lytic-Lysogenic decision is made? 6 + 4 = 10

b) With suitable diagrams describe the Hfr × F^- conjugation process in *E.coli*. What do you mean by Competence? 8 + 2 = 10