



A Charutar Vidya Mandal's Institution
V.P. & R.P.T.P. SCIENCE COLLEGE
(AUTONOMOUS) (Grant-in-Aid)
Affiliated to Sardar Patel University
VALLABH VIDYANAGAR-388120



Bachelor of Science (Semester- IV) External Examination – March 2026
Subject Code: US04MABOT01 Subject Name: PHYCOLOGY, MYCOLOGY
AND PHYTOPATHOLOGY

Date: 24-03-2026, (TUESDAY)

Time: 1:45 PM to 04:15 PM (2.5 hrs)

Total marks: 50

No. of Pages: 02

Q-1 Write the most appropriate answer from the following multiple-choice questions. [10]

- (1) The cell wall of most algal cells is mainly composed of which of the following substances?
- (a) Chitin (b) Cellulose
(c) Peptidoglycan (d) Lignin
- (2) Fucoxanthin, a characteristic brown pigment, is present in which of the following algal groups?
- (a) Chlorophyta (b) Rhodophyta
(c) Phaeophyta (d) Xanthophyta
- (3) A triphasic life cycle, consisting of three distinct phases (gametophyte, carposporophyte, and tetrasporophyte), is characteristic of which of the following algae?
- (a) Chara (b) Vaucheria
(c) Polysiphonia (d) Ulothrix
- (4) White rust disease of cruciferous plants is caused by which of the following pathogens?
- (a) *Phytophthora* (b) *Albugo*
(c) *Aspergillus* (d) *Neurospora*
- (5) Which group of fungi produces zoospores with flagella?
- (a) Zygomycota (b) Chytridiomycota
(c) Ascomycota (d) Basidiomycota
- (6) The principal reserve food material stored in fungal cells is:
- (a) Starch (b) Glycogen
(c) Cellulose (d) Sucrose



- (7) The sequence of events involved in the development of a disease in plants is known as:
- (a) Infection (b) Invasion
(c) Pathogenesis (d) Penetration
- (8) Plant resistance that is governed by the combined effect of many genes is referred to as:
- (a) Vertical resistance (b) Horizontal resistance
(c) Acquired resistance (d) Induced resistance
- (9) Citrus canker disease in citrus plants is caused by which of the following pathogens?
- (a) *Xanthomonas citri* (b) *Agrobacterium tumefaciens*
(c) *Pseudomonas syringae* (d) *Erwinia amylovora*
- (10) The vector responsible for transmitting papaya leaf curl disease is:
- (a) Aphid (b) Whitefly
(c) Leafhopper (d) Thrips

Q-2 Discuss the general characteristics of *Chlorophyta* (green algae) in detail. [10]

OR

Q-2 Explain the classification of algae according to G. M. Smith with suitable examples. [10]

Q-3 Describe the morphology and modes of reproduction in *Aspergillus*. [10]

OR

Q-3 Discuss the structure, reproduction, and significance of *Phytophthora*. [10]

Q-4 Explain the effects of pathogen infection on the physiology of the host plant. [10]

OR

Q-4 Write an elaborate note on the general symptoms and classification of plant diseases with suitable examples. [10]

Q-5 Describe the disease cycle, symptoms, and management of Citrus Canker and Red Rot of Sugarcane. [10]

OR

Q-5 Discuss the major viral diseases of crop plants with suitable examples. [10]

