

Seat No: \_\_\_\_\_

No of printed pages: 4 [E+G]

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E+G

## SARDAR PATEL UNIVERSITY

B. Sc. (Semester III) Examination (2021-22)

1<sup>st</sup> December, 2021

03:00pm to 05:00 pm

US03CBOT21 BOTANY

(Phycology, Mycology and Phytopathology)

TOTAL MARKS: 70

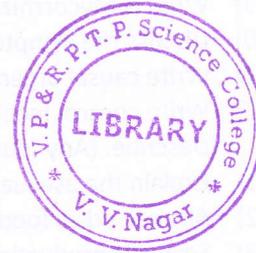


Instructions: There is total four questions. \* Answer all sub questions in continuation. \*

Q:1 Multiple choice questions.

[10]

- (01) Which one of the following is a unicellular alga?  
(a) *Ectocarpus* (b) *Nostoc* (c) *Chlamydomonas* (d) *Polysiphonia*
- (02) Synzospores are produced in this  
(a) *Nostoc* (b) *Chara* (c) *Ectocarpus* (d) *Vaucheria*
- (03) Agar-agar is obtained from this  
(a) *Gracilaria* (b) *Nostoc* (c) *Vaucheria* (d) *Ectocarpus*
- (04) Holocarpic thallus is seen in this  
(a) *Albugo* (b) *Synchytrium* (c) *Agaricus* (d) *Aspergillus*
- (05) *Agaricus* produce  
(a) basidiospore (b) conidiospore (c) pyniospore (d) macroconidia
- (06) Reserpine and recicimine are secondary metabolites derived from  
(a) *Roulfiaserpentine* (b) *Digitalis purpuria* (c) *Atropa beladona* (d) *Ephedra foliata*
- (07) *Usnea* is an example of  
(a) Crustose lichen (b) Foliose lichen  
(c) Fruticose lichen (d) Squmulse lichen
- (08) Mycorrhiza association is found in  
(a) Rhodophyta (b) Gymnosperm (c) Lichen (d) Ascomycota
- (09) *Colletotrichum falcatum* is causal organism for which disease?  
(a) white rust of crucifer (b) late blight of potato (c) Citrus canker (d) redrot of sugarcane
- (10) Citrus canker is caused by  
(a) virus (b) bacteria (c) mycoplasma (d) fungi



Q:2 Answer as stated.

[08]

- (01) Nucule is a reproductive structure found in *Ectocarpus*. (True or False?)
- (02) Monospore is produced by *Polysiphonia*. (True or False?)
- (03) The mushroom growing in a ring is known as \_\_\_\_\_.
- (04) The lichens that are growing on bark of trees, known as \_\_\_\_\_ type of lichen.
- (05) The mycorrhiza are the symbiotic associations between plant root and algae. (True or False?)
- (06) Bioreactor is used to obtain secondary metabolites in large quantities. (True or False?)
- (07) Leaf curl of papaya is caused by \_\_\_\_\_ causal organism.
- (08) Blitox 50 and Fytolan are growth hormone. (True or False?)

See page 2- overleaf

- Q:3 Write answer in one or two sentence only. (any ten) [20]
- (01) What are hormogonia? In which plant it is found?
  - (02) Explain the antherozoid structure of *Vaucheria*.
  - (03) Write name of any two renowned phycologist of India?
  - (04) What is primary and secondary sterigmata? During which kind of reproduction, it is produced?
  - (05) Write the name of different kind of conidia observed in *Neurospora*.
  - (06) Sketch and labeled diagram of T. S. of Gills of *Agaricus*.
  - (07) Write the name of fungi used in medicine.
  - (08) Explain 'Isidia' type of asexual reproduction in Lichen.
  - (09) What is Mycorrhiza?
  - (10) Discuss the symptoms: Necrosis, Blight.
  - (11) Write causal organism of Late blight of Potato and Citrus canker disease.
  - (12) Write control mechanism for Red rot of Sugarcane.

- Q:4 Describe. (Any four) [32]
- (01) Explain the asexual reproduction in *Ectocarpus*.
  - (02) Algae used as food and fodder-Discuss.
  - (03) Sexual reproduction in *Albugo*.
  - (04) Discuss the cultivation process of Mushroom.
  - (05) Explain Ectomycorrhiza and Endomycorrhiza with suitable examples.
  - (06) Discuss the sexual reproduction in Lichen.
  - (07) What is the causal organism of plant disease 'White rust of crucifer'? Write the symptoms and control measures.
  - (08) TMV.



(2)