

23/A-13

SEAT No. _____

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY
S Y. B.Sc. (THIRD SEMESTER) EXAMINATION
Thursday, 29th November 2018
2.00 p.m. to 4.00 p.m.

US03EBOT01 -Phytodiversity and Plant Biotechnology

Total Marks: 70

(10)

Q.1. Select the correct answer and write it in the answer sheet

1. The female sex organ in Chara is known as _____
(a) Globule (b) Gimma (c) Nucule (d) Sporocarp
2. The outer wall of Globule is made up of _____ cells
(a) Manubrium (b) Shield (c) Primary caputulum (d) Sec Capitulum
3. Mycorrhiza is a symbiotic relation between _____ & higher plant roots
(a) Algae (b) Fungi (c) Bacteira (d) None
4. Albugo causes the disease _____
(a) White rust (b) Black rust (c) Red rust (d) Citrus canker
5. Mycology is the study of _____
(a) Algae (b) Fungi (c) Lichen (d) Viruses
6. The causal organism in late blight of Potato is _____
(a) Puccinia (b) Albugo (c) Cercospora (d) Phytophthora
7. Rust of Wheat is caused by _____
(a) Albugo (b) Puccinia (c) Peronospora (d) Sarcospora
8. BT cotton is example of _____ resistant plant
(a) Salt (b) Herbicide (c) Stress (d) Insect
9. The callus is mass of _____ cells
(a) Parenchyma (b) Permanent (c) Collenchyma (d) Undifferentiated
10. The transgenic animal _____ is used for better quality of wool.
(a) Mice (b) Pig (c) Sheep (d) Rabbit

Q.2. Answer the following in brief (Any 10)

(20)

1. Discuss the thallus structure of Ulothrix
2. Explain false branching in Scytonema
3. Describe the filament of Gloeotrichia
4. Discuss the spores of Puccinia on wheat plant
5. What is Mycorrhizae ?
6. State any two economic importance of Fungi
7. Write the symptoms of Tikka disease
8. Mention various types of spores of Puccinia
9. Write symptoms of Tikka disease
10. Write the principle of Tissue culture
11. Explain the use of Laminar Air Flow
12. What are genetically modified organisms ?

①

(P.T.O.)

- Q.3. (a) Explain the structure of Globule with diagram (05)
(b) Discuss the spores of *Ulothrix* in detail (05)

OR

- Q.3. (a) Describe the thallus structure of *Chara* (05)
(b) Explain false branching in *Scytonema* (05)

- Q.4. (a) Mention the asexual reproduction in *Albugo* (05)
(b) Discuss the Life cycle of *Puccinia* on Primary Host (05)

OR

- Q.4. (a) Discuss the life cycle of *Aspergillus* (05)
(b) Write a note on life cycle of *Peronospora* (05)

- Q.5. (a) Write about Pathogen and symptoms of Rust of wheat (05)
(b) Discuss Symptoms and management of white rust of crucifers (05)

OR

- Q.5. (a) Write in detail about late blight of Potato (05)
(b) Give a brief account of Tikka disease of Groundnut (05)

- Q.6. (a) Discuss the applications of Biotechnology (05)
(b) Explain the aseptic conditions in tissue culture lab (05)

OR

- Q.6. (a) Explain the general process of tissue culture (05)
(b) Which are the instruments housed in tissue culture lab ? (05)