

V.P. &R.P.T.P. Science College
Microbiology ; US05CMIC05
Microbial Diversity and Ecology
07.10.17; Saturday
11.00 a.m.-12.30 p.m.

Total Marks:25

(i) All questions are compulsory.

(ii) Marks are indicated on the right hand side.

Q.1. Attempt the following multiple choice questions. (03)

1. Fungi with unicellular thallus which produces asexual or sexual cells are known as

- (a) eucarpic fungi (b) holocarpic fungi
(c) aseptate fungi (d) septate fungi

2. HIV infects lymphocytes bearing _____ receptors on their surface.

- (a) DC₄ (b) C₄D₄
(c) CD₄ (d) none of the above.

3. *Enterococcus faecalis* and *Escherichia coli* together are able to convert arginine to

- (a) ornithine (b) agmatine
(c) lactic acid (d) none of the above

Q.2. Attempt any two out of the following briefly. (04)

1. Give two functions of haustorium.
2. Give two examples of viroids.
3. What does bioluminescence by *Photobacterium* require?

Q.3. Describe sexual reproduction in fungi. (06)

OR

Q.3. Explain the medical and agricultural importance of fungi. (06)

Q.4. Explain the one step growth experiment. (06)

OR

Q.4. Draw a neat and labelled diagram of HIV. Explain its characteristics. (06)

Q.5. Enlist negative interactions amongst microorganisms.
Explain any one in detail. (06)

OR

Q.5. Define mutualism and explain it at length citing one example. (06)

