PG Odd Semester (CBCS) Exam., December—2016

BIOTECHNOLOGY

(1st Semester)

Course No. : BTYCC–104

(Microbiology and Virology)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Write in detail the structure of bacterial cell with special reference to cell wall differentiation in gram positive and gram negative bacteria. 14

OR

2. What is biological nitrogen fixation? Write the mechanism of action of biological nitrogen fixation by bacteria. 2+12=14

3. What is nutrient medium? Write the methods of enrichment culture for isolation of nutritional categories of bacteria. 2+12=14

OR

4. Write short notes on the following : 7×2=14

(a) Agrobacterium

(b) Mycobacteria

5. Write the fungal interaction with plant and animal and its consequences in the life of plant and animal. 14

OR

6. Discuss the use of fungi in industry, coal solubilization and cancer therapy. 14

7. Write the structure of Bacteriophage with suitable diagram. Write briefly the methods of propagation of animal and plant viruses. 4+10=14

OR

8. Write short notes on the following : 7×2=14

(a) Polio and measles

(b) Pox and adenovirus

9. Write the process of development of DNA and peptide vaccines. Write the advantages of these vaccines over the conventional vaccines. 10+4=14

OR

10. Write short notes on the following : 7×2=14

(a) siRNA

(b) Molecular diagnosis of virus

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