PG Even Semester (CBCS) Exam., May—2017

LIFE SCIENCE AND BIOINFORMATICS

(2nd Semester)

Course No. : LS–202 (C)

(Microbiology)

Full Marks : 75
Pass Marks : 30

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Write short notes on the following : 7½×2=15

(a) Synchronous growth

(b) Rickettsia

OR

2. Give an account of the general structure of bacteria or fungi with special reference to their sexual reproduction. 15

3. Give an account of cellular structure of animal virus. How do viruses replicate and multiply? Explain with suitable sketch. 7+8=15

OR

4. Write short notes on the following : 7½×2=15

(a) Oncogenic virus

(b) Foot and mouth disease

5. Discuss the method of biodegradation in soil environment with suitable examples. 15

OR

6. Write the methods of isolation of microbes from soil with suitable sketches. 15

7. Describe in brief the process of conjugation in bacteria. What do you understand by HFR and F′ cells? Illustrate, using suitable diagram, the conjugation of $HFR \times F^-$ and $F' \times F^-$. 5+5+5=15

OR

8. Explain with illustration the process through which the genetic information is transferred from one bacteria to another. 15

9. What do you mean by biogeological cycle? Give details of biological nitrogen fixation with examples. 3+12=15

OR

10. Write short notes on any *two* of the following : 7½×2=15

(a) Phosphorous cycle

(b) Importance of biofuel

(c) Microbes in pharmaceuticals

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