

PG Odd Semester (CBCS) Exam., December—2018

LIFE SCIENCE AND BIOINFORMATICS

(1st Semester)

Course No. : LSBCC-102

(Cell Biology and Immunology)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer **all** questions

1. What is a lipid raft? Explain the structure and functions of lipids in plasma membrane. 2+12=14

OR

2. Write short notes on the following : 7+7=14
(a) Composition of cell wall
(b) Peroxisomes
3. "Of all the social interactions between cells in a multicellular organism, the most fundamental are those that hold the cells together." Justify the statement in the light of cell junctions and cell adhesion molecules. 7+7=14

J9/81

(Turn Over)

OR

4. Differentiate between the following : 7+7=14
(a) Secretory and endocytic pathway
(b) Cell division and cell cycle
5. What do you mean by host parasite interaction? Describe briefly the recognition and entry process of bacteria into animal host cells including the subsequent alteration of host cell behaviour. 2+12=14

OR

6. Write short notes on the following : 7+7=14
(a) Quorum sensing
(b) Hematopoiesis and its regulation
7. Describe the molecular structure of immunoglobulin molecule. Discuss the functions of different domains. 10+4=14

OR

8. Write short notes on the following : 7+7=14
(a) MHC complex
(b) T-cell maturation

J9/81

(Continued)

(3)

9. Differentiate between the following : 7+7=14

(a) Affinity and avidity

(b) Interleukins and interferons

OR

10. What is AIDS? What are its symptoms? Add a comparative note on the treatment and prevention of AIDS. 2+4+8=14
