b) State the formula to calculate the bacterial population growth over time and explain the bacterial growth curve

5 What is host-parasite interaction? With suitable example, describe the process of virus-mediated infection in human host. Add a note on virus induced cell transformation 4+5+5=14

Or

6. Write short notes on the following: 7x2=14
   a) Gap junction
   b) Intrinsic and extrinsic pathways of apoptosis

7. Describe the structural and functional organization of a generalized immunoglobulin molecule 14

Or

8. Write short notes on the following: 7x2=14
   a) T- cell maturation
   b) Isotypic, allotypic and idiotypic variations in antibodies

9. Write a descriptive note on the different forms of hypersensitive reactions. 14

Or

10. Write short notes on the following: 7x2=14
    a) Monoclonal antibodies
    b) Vaccines

★★★

PG ODD SEMESTER EXAMINATION, 2022

LIFE SCIENCE & BIOINFORMATICS

1st Semester

COURSE NO. LISBCC – 502

(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 protein trafficking? Describe the mechanism of sorting and targeting of secretory protein from the site of synthesis to plasma membrane 2+12=14

Or

2. Write short notes on the following: 7x2=14
   a) Structure and functions of lysosome
   b) Resting membrane potential

3. Write short notes on the following: 7x2=14
   a) Cell cycle checkpoints
   b) Organization of microtubules

Or

4. Write short notes on the following: 7x2=14
   a) Explain the terms piezophiles and differential media