23P314	(Pages: 2)	Name:
		Reg.No:

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2024

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P ZOL3 C07 - IMMUNOLOGY AND CELL BIOLOGY

(Zoology)

(2019 Admission onwards)

Time: 3 Hours Maximum: 30 Weightage

Part-A

Answer any *four* questions. Each question carries 2 weightage.

- 1. What are PAMPs and DAMPs?
- 2. What is prozone effect?
- 3. Review the signalling in TLRs.
- 4. What is MHC?
- 5. Describe the antigen processing and presentation by MHC-II.
- 6. Describe the functions of collagen.
- 7. Explain RTK Pathway.

 $(4 \times 2 = 8 \text{ Weightage})$

Part-B

Answer any *four* questions. Each question carries 3 weightage.

- 8. Explain about antigens and its types and role in immunology.
- 9. What are the major steps in the development of B-Lymphocytes?
- 10. Explain the mechanism of V(D)J recombination and comment on its importance.
- 11. Describe the lectin pathway of complement activation.
- 12. Explain the immunology of tuberculosis.
- 13. Describe in detail: a) Bruton's disease b) Di-george syndrome c) SCID
- 14. Explain the mechanism of cell sorting and regulation of intracellular trasport

 $(4 \times 3 = 12 \text{ Weightage})$

Part-C

Answer any two questions. Each question carries 5 weightage.

- 15. Review the method of production of monoclonal antibodies by hbridoma. What are its uses?
- 16. Describe the principle and working of Western blot. Comment on its major applications.

- 17. Describe in detail various types of vaccines and their importance in preventing diseases.
- 18. Explain Extracellular and Intracellular regulation of apoptosis.

 $(2 \times 5 = 10 \text{ Weightage})$
