## MODEL QUESTION PAPER FOR END SEMESTER EXAM **B.Sc Degree Course**

(Semester-III) BTT 301 Biophysical techniques

Timer: 3hrs

Max marks: 75

Section-A (5X5=25 marks)

Attempt any Five of the following

- 1. Principle in thin layer chromatography.
- 2. Iso-electric focussing.
- 3. Standard deviation.
- 4. Differential centrifugation
- 5. Principle in fluorimetry.
- 6. Units of radio activity.
- 7. Applications of agarose gel electrophoresis.
- 8. Isotope tracer studies.

Section-B (10X5=50 marks)

Attempt all the following questions

- 9. Explain the construction of spectrophotometer and its applications. (OR)
- 10. Explain the principle, instrumentation and applications of flame photometry.
- 11. Explain the principle and applications related to ion exchange chromatography. (OR)
- 12. How to separate lipids using GLC.
- 13. How to separate polypeptides using SDS-PAGE
- 14. What are the factors affect the electrophoretic mobility of biomolecules during electrophoresis
- 15. How to measure the radioactivity using various techniques.

(OR)

- 16. What are the uses of Radio isotopes in medicine and biology.
- 17. Describe the principle and applications of density gradient centrifugation.

(OR)

18. Explain the basic concepts of Mean, Median and Mode.

DEPARTMENT OF BIOCHEMISTR SRI VENKATESWARA UNIVERSITY

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## MODEL QUESTION PAPER FOR END SEMESTER EXAM B.Sc Degree Course (Semester-IV) BTT 401 IMMUNOLOGY

Timer: 3hrs Max marks: 75

Section-A (5X5=25 marks)

- 1. Innate immunity.
- 2. Clonal Selection theory.
- 3. Immunofluorescence.
- 4. Types of Antigens.
- 5. Explain the role of T-lymphocytes.
- 6. What is major histocompatibility complex?
- 7. What are recombinant vaccines?
- 8. Agglutination

Section-B (10X5=50 marks)
Attempt all the following questions

Attempt any Five of the following

9. Explain organs and cells of immune system.

(OR)

- 10. What are the main pathways of complement system.
- 11. Explain the structure and functions of different types immunoglobulins.

(OR)

- 12. Explain antibody diversity.
- 13. Explain cell mediated and humoral immune response.

(OR)

- 14. Autoimmune diseases
- 15. Types of hypersensitivity.

(OR)

- 16. Explain vaccination and what are the types of vaccines.
- 17. Explain ELISA.

(OR)

18. How hybridoma technology is employed in production of monoclonal antibodies.

BOS CHAIRMAN

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