

Bachelor of Science (B.Sc.)-I (CBCS Pattern) Second Semester CBCS
USBCT-C04 - Biochemistry Paper-II : Clinical Biochemistry and Immunology

P. Pages : 2

Time : Three Hours



GUG/W/18/11571

Max. Marks : 50

Notes : 1. All questions are compulsory and carry equal marks.

1. Discuss the structure and functions of liver. **10**
- OR**
- a) What is jaundice? Discuss their types. **2½**
- b) Discuss the Van der Bergh reaction for determination of serum bilirubin. **2½**
- c) What is galactose tolerance? Explain briefly. **2½**
- d) Write the clinical significance of SGOT and SGPT. **2½**
2. Describe the structure of nephron and formation of urine? **10**
- OR**
- a) Give an account of normal and abnormal constituents of urine. **2½**
- b) Discuss creatinine clearance test. **2½**
- c) What is acidosis and alkalosis? **2½**
- d) Write a note on glomerular nephritis. **2½**
3. Discuss in detail the structure of IgG immunoglobulin. **10**
- OR**
- a) Discuss briefly the structure and functions of thymus. **2½**
- b) What is the role of macrophage in the immune system? **2½**
- c) Briefly discuss the development of B-cells. **2½**
- d) Give an account of structure and properties IgA. **2½**
4. Describe the preparation and applications of monoclonal antibodies. **10**
- OR**
- a) Discuss the principle of radioimmunoassay technique. **2½**
- b) Briefly describe the agglutination reaction of antigen and antibody. **2½**
- c) What is hypersensitivity? Give different types of hypersensitivity reactions. **2½**
- d) Explain autoimmunity with one example. **2½**

5. Attempt **any ten** of the following.

- a) What is normal range of serum bilirubin? **1**
- b) What is normal albumin globulin ratio? **1**
- c) Give the types of hepatitis. **1**
- d) What is GFR? **1**
- e) What is glucosuria? **1**
- f) Which hormone is responsible for diabetes insipidus? **1**
- g) Name the cell on which CD₄ and CD₈ surface marker are present. **1**
- h) Which cell is precursor of all types of blood cells? **1**
- i) Name two antigen presenting cells. **1**
- j) Give full form of ELISA. **1**
- k) What is immune tolerance? **1**
- l) What are myeloma cells? **1**
