Bachelor of Science (B.Sc.)-I (CBCS Pattern) Second Semester CBCS

USBCT-C04 - Biochemistry Paper-II : Clinical Biochemistry and Immunology

P. Pages : 2 **GUG/W/18/11571**

Time : Three Hours * 3 6 4 6 * 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 CD_4 and CD_8 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**

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