

**USBCT-C04 - Biochemistry (Paper-II) : Clinical Biochemistry and Immunology**

P. Pages : 2

Time : Three Hours



**GUG/W/22/11571**

Max. Marks : 50

Note : All the questions are compulsory and carry equal marks.

1. Explain the structure and functions of liver. Add a note on liver cirrhosis. **10**

**OR**

- a) Write a note on hepatitis. **2½**
- b) Discuss the bromsulphthalein test. **2½**
- c) Give the clinical significance of serum enzymes in liver diseases. **2½**
- d) Write a note on conjugated and total bilirubin in serum. **2½**

2. Write a detailed note on urine formation. **10**

**OR**

- a) Draw a well labelled diagram of nephron. **2½**
- b) Write a note on normal constituents of urine. **2½**
- c) What is acidosis and alkalosis? **2½**
- d) Explain the urea clearance test. **2½**

3. Describe the following.

- i) Cell mediated immunity and **5**
- ii) Humoral immunity. **5**

**OR**

- a) Define immunity. Give the concept of haptens and adjuvants. **2½**
- b) Draw the structure of IgG. **2½**
- c) Write a note on IgA. **2½**
- d) Explain the structure of thymus. **2½**

4. Discuss the antigen-antibody reactions in detail. **10**

**OR**

- a) Write a note on RIA. 2½
- b) Give the concept of immunotolerance. 2½
- c) Discuss the clonal selection theory. 2½
- d) Write the diagnostic applications of monoclonal antibodies. 2½

**5.** Attempt **any ten** of the following. **10**

- a) Enlist the symptoms of jaundice.
- b) What is the significance of albumin : globulin ratio?
- c) What is hippuric acid test?
- d) Write the formula for maximum creatinine clearance.
- e) Write the significance of phenol red test.
- f) What is GFR?
- g) Define antigen and antibody.
- h) Enlist the subtypes of T-cells.
- i) What is the function of memory cell?
- j) Give the full form of ELISA.
- k) What is hypersensitivity?
- l) Define auto immunity.

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