[A-81]

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**SARDAR PATEL UNIVERSITY**
**B.Sc. VI Semester Examination 2016**
**Monday, 4th April**
**2.30 P.m. to 5.30 P.m.**
**Subject Code: US06CBCH04**
**(Clinical Biochemistry)**

**Total Marks: 70**

**Q1. Choose the correct option and write it in the answer sheet:** **[10]**

1. Which of these blood cells do not have nuclei?
   a) WBC b) RBC c) Monocytes d) all of these
2. One of the following is normal component of urine.
   a) Protein b) Sugar c)Urea d) blood cell
3. The difference between plasma and serum is the presence or absence of
   a) Prothrombin- Fibrinogen b) Albumim – Sugar c) Calcium- Phosphorus
   d) None of these.
4. …….. is the serves as a hydraulic shock absorber and helps in the regulation of intracranial pressure.
   a) Cerebrospinal fluid b) Pleural fluid c) Amnionic fluid d) Aqueous humor
5. Haptaglobin binds and prevents the excreation of …….
   a) Free Hb b) Heparin c) Albumin d) HDL
6. Hemoglobinn is the red blood pigment, exclusively found in
   a) Erythrocytes b) Lymphocytes c) Thrombocytes d) Leukocytes.
7. Carbon monoxide is a toxic compound that can bind with Hb in the same manner as..
   a) Oxygen b) Carbon dioxide c) Iron d) None of these.
8. Macrocytic Anemia is caused by deficiency of
   a) Vit $B_{12}$ b) Folic acid c) Iron d) sugar
9. In hemolytic Jaundice, Van der Bergh reaction is
   a) Indirect positive b) Direct positive c) Bisphasis d) None of these.
10. The serum enzymes elevated in alcoholic cirrhosis of liver is
    a) GGT b) Hexokinase c) Urease d) None of these.

**Q2.** Answer the followings in short (any ten): **[20]**

1. Define Disease, Disorder, Syndrome and Clinical biochemistry.
2. What are the major types of diseases?
3. What are formed elements of blood? Write their general functions.
4. Albumin carrying only 10% copper but though it is major supplier of copper to the tissue why?
5. Write composition of Lymph.
6. Write formula to calculate creatinine clearance.
7. Explain urea clearance value below 75% of the normal viewed seriously.
8. Explain Haemoglobin is an oligomereric metallo protein.
9. Why Iron deficiency leads to Anemia?
10. What is microcytic – hypochromic anemia?
11. Write names of $\alpha 1$,$\alpha 2$, and $\beta$ globulins
12. Explain Albumin is key plasma protein.

**Q3** (a) Describe various functions of blood. **[05]**

(b) Describe composition of plasma. **[05]**

**OR**

**Q3** (a) What are major causes of disease? List Few infectious disease. **[07]**

(b) Describe composition of normal urine and C.S.F. **[03]**

**Q4** (a) Discuss in detail about Lipoproteins. **[07]**

(b) Write notes on Ceruloplasmin. **[03]**

**OR**

**Q4** (a) Discuss in detail about chemistry and functions of Albumin. **[07]**

(b) Write about effect of smoking on $\alpha$AT. **[03]**

**Q5** Describe in detail about three types of Jaundice and list out any five liver function tests. **[10]**

**OR**

**Q5** a) Write about protective and storage functions of liver. **[05]**

b) What are various tests to access renal functions? **[05]**

**Q6** Describe in detail about chemistry,structure and functions of Hb **[10]**

OR

**Q6** Write notes on : **[10]**

a) Causes and symptoms of anemia.

b) Morphological classification of anemia.

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