T. Y. B. Sc. (Biotechnology) SEM – V (CBCS - 2015 COURSE) : WINTER - 2018

Subject: Clinical Biotechnology

Day: Wednesday
Date: 24/10/2018

W-2018-1183

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B.:

1) Q1 and Q5 are compulsory.
2) Answer ANY TWO questions from Q 2, 3, 4 in Section I.
3) Answer ANY TWO questions from Q 6, 7, 8 in Section II.
4) Answers to Both the sections to be written in SEPARATE answer books.
5) Draw a labeled diagram WHEREVER necessary.

SECTION - 01

Q.1) Answer the following: (ANY FIVE) (2 Marks X 5 = 10)

a) What is the role of vitamin K in blood clotting?
b) List the steps involved in obtaining the lab tests.
c) What do you mean by total and differential count?
d) What is the role of prothrombin activator in blood clotting?
e) Give full forms of SGOT and SGPT.
f) State the Friedewald equation for estimation of LDL-cholesterol.

Q.2) Answer the following: (5 Marks X 2 = 10)

a) Explain the structure and functions of kidney.
b) Define anticoagulants. Explain the specific mode of action and test for any four anticoagulants.

Q.3) Explain the following: (5 Marks X 2 = 10)

a) Discuss the major components of blood clotting.
b) Describe the various functions of different lipoproteins.

Q.4) Write short notes on the following: (5 Marks X 2 = 10)

a) Neonatal jaundice
b) Clinical significance of lipid profile

SECTION - 02

Q.5) Answer the following: (ANY FIVE) (2 Marks X 5 = 10)

a) Define isoenzymes. Give one example.
b) Which information is received from enzymes measurements in serum?
c) What are the diagnostic criteria for diabetes?
d) Which are the chief intracellular and extracellular fluid ions?
e) Define ketoacidosis.
f) What is the requirements for red blood cell production, give 4 names.

Q.6) Answer the following: (5 Marks X 2 = 10)

a) What is conjugated billirubin? Explain any two types of jaundice in detail.
b) Explain radiation hazard in detail.

Q.7) Explain the following: (5 Marks X 2 = 10)

a) Describe the diagnostic enzymes in heart diseases.
b) Describe the structure of hemoglobin and any one diagnostic method.

Q.8) Write short notes on the following: (5 Marks X 2 = 10)

a) Sickle cell anemia
b) Glucose tolerance test

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