MAL-003-038303 Seat No. _____

B. Voc. Medical Laboratory & Molecular Diagnostic Technology (Sem. III) (CBCS) Examination

October / November – 2016

MLMDT-3.3 : Clinical Biochemistry

Faculty Code : 003
Subject Code : 038303

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

SECTION - I

1 Answer the following questions : **20**

(1) What is gestational diabetes ?

(2) Give the names of enzymes catalyzing irreversible steps in glycolysis.

(3) Why TCA cycle is considered as amphibolic in nature ?

(4) What is the normal range of cholesterol in human body ?

(5) Why HDL is considered as good cholesterol ?

(6) What is the role of chylomicrones ?

(7) What is tophi ?

(8) Which enzyme is absent / deficient in alkaptonuria ?

(9) What is the cause of maple syrup urine disease (MSUD) ?

(10) Write daily requirement of Calcium, Magnesium and Phosphorous.

(11) What are the functions of osteoblast and osteoclast ?

(12) Enlist the markers of bone diseases.

(13) Which are protein biomarkers in cardiac diseases ?

(14) Which enzymes are used as diagnostic test in gastro-intestinal diseases ?

(15) What are the units of enzyme measurement ?

(16) What do you mean by metabolic water ?

(17) Name the hormones regulating excretion of water and electrolytes.

(18) What is respiratory acidosis ?

(19) Define : radionucleoid study.

(20) What is use of cyatatin C in RFT ?

SECTION - II

2 (a) Answer in brief : (any **three**) **3×2=6**

(1) Write significance of 2,3-BPG shunt.

(2) How will you control hypercholesterolemia ?

(3) What is pseudogout ?

(4) Enlist Serum enzymes used to diagnose Liver function.

(5) Write the functions of phosphorus ?

(6) Write significance of Isoenzymes.

(b) Answer in brief : (any **three**) **3×3=9**

(1) Write significance of HMP shunt.

(2) What is Coronary Artery Diseases ?

(3) Write a short note on maple syrup urine disease.

(4) Write in brief about diabetic nephropathy.

(5) Enlist types of CPK and ALP and its location and functions.

(6) What is water intoxication ?

(c) Answer in detail : (any **two**) **2×5=10**

(1) Diabetes mellitus

(2) Artherosclerosis

(3) Explain phenylketonuria

(4) Note on glomerulonepritis

(5) Write about the enzymes used as diagnostic markers.

SECTION - III

3 (a) Answer in brief : (any **three**) **3×2=6**

(1) Enlist symptoms of diabetes.

(2) Enlist the tests included in lipid profile.

(3) What is Lesch-Nyhan syndrome ?

(4) Enlist common symptoms during renal inefficiency.

(5) Write about normal electrolyte balance in brief.

(6) Write the functions of phosphorus in the body.

(b) Answer in brief : (any **three**) **3×3=9**

(1) Write in brief about Cori's Cycle.

(2) How will you prevent hypercholesterolemia ?

(3) Write a short note on causes of hyperuricemia.

(4) Brief note on Detoxification function of liver.

(5) What are the functions of Magnesium in the body?

(6) Write the clinical features of primary dehydration.

(c) Answer in detail : (any **two**) **2×5=10**

(1) Gluconegenesis

(2) Explain in detail about urine analysis in ruling kidney disease.

(3) Write a note on inborn error of metabolism with respect to protein.

(4) Brief on Metabolic acidosis and alkalosis.

(5) Discuss metabolic bone diseases.

———