[LH 0415] **OCTOBER 2015** **Sub. Code: 1261**

M.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION

(From 2013-2014 Batch onwards)

SECOND YEAR

PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. Code : 281261

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss in detail about the diagnostic and therapeutic uses of enzymes.
2. Elaborate on Mechanism of action of hormones.

II. Write Notes on: **(10 x 6 = 60)**

1. Lipoprotein(a).
2. Glycated hemoglobin.
3. Gut Hormones.
4. Principles, instrumentation and application of Chemiluminescence.
5. Tumour markers.
6. Biochemical functions of calcium.
7. Thyroid function tests.
8. Triple test.
9. Phenylketonuria.
10. Dietary fibres and its health benefits.

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[LJ 1016] OCTOBER 2016 **Sub. Code: 1261**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. Code: 281261

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Describe in detail about classification, diagnostic criteria and complications of Diabetes Mellitus.

2. Elaborate on various Liver function tests.

II. Write notes on: **(10 x 6 = 60)**

1. Cardiac Troponins.
2. Vitamin D.
3. Serum electrophoresis.
4. Alkaptonuria.
5. Tumour markers.
6. Hormonal changes in menstrual cycle.
7. Screening for down syndrome.
8. Glomerular function tests.
9. Hypothyroidism.
10. Dietary fibres.

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[LL 1017] OCTOBER 2017 **Sub. Code: 1261**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. Code: 281261

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Give a detailed account on various Liver Function Tests.

2. Explain different types of nutrients with its importance and add a note on nutritional disorders.

II. Write notes on: **(10 x 6 = 60)**

1. Role of hormones in the diagnosis of diseases.
2. Types of lipoproteins.
3. Protein energy malnutrition.
4. Second messengers.
5. Gonadal hormones.
6. Cardiac enzymes.
7. Renal diseases.
8. Qualitative tests for individual sugars in urine.
9. Lipid storage diseases.
10. Tumor markers.

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[LN 1018] OCTOBER 2018 **Sub. Code: 1261**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. Code: 281261

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss in detail the dietary sources, RDA, biochemical functions and deficiency manifestations of Vitamin B12.

2. Describe in detail the various renal function tests.

II. Write notes on: **(10 x 6 = 60)**

1. Glycated hemoglobin.
2. Tests to estimate the increased risk of cardiovascular disease.
3. Cerebrospinal fluid analysis.
4. Define Basal Metabolic Rate (BMR) and factors affecting BMR. .
5. Mention four tumour markers with their significance.
6. Electrophoresis of plasma proteins.
7. Tests to assess adrenal function.
8. Determination of Sodium & Potassium in blood.
9. Differentiate various types of jaundice using biochemical tests.
10. Mechanism of action of steroid hormones.

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[LP 1019] OCTOBER 2019 **Sub. Code: 1261**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. Code: 281261

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss in detail about various Thyroid Function Tests.

2. Explain the functions of Albumin and add a note on Electrophoresis of proteins.

II. Write notes on: **(10 x 6 = 60)**

1. Lipid profile.
2. Glucose tolerance test.
3. Second messengers.
4. Oncogenes.
5. Types of jaundice.
6. Alkaptonuria.
7. Iodine.
8. Isoenzymes.
9. Hormones of posterior pituitary.
10. Laboratory diagnosis of AIDS
    (Acquired Immuno Deficiency Syndrome).

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[LQ 1019] NOVEMBER 2020 **Sub. Code: 1261**

(MAY 2020 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY

SECOND YEAR

PAPER I

CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. code: 281261

Time: Three hours **Maximum: 100 marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Define and classify Electrophoresis. Detail the steps and applications of Agar gel Electrophoresis.
2. Detail the dietary sources, RDA ,functions and deficiency manifestations of Vitamin-A.

II. Write notes on: **(10 x 6 = 60)**

1. Lactose Intolerance.
2. Functions of Calcium.
3. Liver enzymes.
4. Deficiency manifestations of Vitamin D.
5. Sickle cell Anaemia.
6. Obesity.
7. Role of Lungs in maintaining Blood pH.
8. Proteinuria.
9. Thyroid profile.
10. Urine preservatives.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0321] MARCH 2021 Sub. Code: 1261

(OCTOBER 2020 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY

SECOND YEAR (2011-2012 Regulation - From 2013-2014 onwards)

PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY

Q.P. Code : 281261

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Enumerate the Liver Function Tests. Detail the Methodology for estimation of total Protein.
2. Describe the Mechanism of Hormones in Blood Glucose regulation during Starvation and Fed state.

II. Write notes on: **(10 x 6 = 60)**

1. Hyperuricaemia.
2. Mutagens.
3. Lipid Profile.
4. Galactosemia.
5. Wilsons Disease.
6. Functions of Vitamin C
7. Phenylketonuria.
8. 24 hrs Urine Collection Technique.
9. Hypokalemia.
10. Pancreatic Function.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0921] **SEPTEMBER 2021** **Sub. Code: 1261**
(MAY 2021 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (2011-2012 Regulation - From 2013-2014 onwards)
PAPER I – CLINICAL BIOCHEMISTRY, ENDOCRINOLOGY AND NUTRITIONAL BIOCHEMISTRY
Q.P. Code : 281261

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Detail the Dietary sources, RDA, Functions and Deficiency manifestations of Vitamin-B1 (Thiamine).

2. Define and Classify types of Chromatography. Detail its Clinical applications and Describe any one of the Technique.

II. Write notes on: **(10 x 6 = 60)**

1. Hemosiderosis.
2. Functions of Cholesterol.
3. Maple Syrup Urine Disease.
4. Hyperbilirubinaemia.
5. Functions of Vitamin B6 (Pyridoxine).
6. Hypocalcaemia.
7. Stone Analysis.
8. Diabeticketo-Acidosis.
9. Bence Jones Protein.
10. Hyperthyrpoidism.

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