

[LN 1018]

OCTOBER 2018

Sub. Code: 1702

**M.Sc. CRITICAL CARE TECHNOLOGY EXAMS
FIRST YEAR
PAPER II – APPLIED BIOCHEMISTRY & PHARMACOLOGY
RELATED TO CRITICAL CARE**

Q.P. Code: 281702

Time: Three hours

Maximum: 100 Marks

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

1. Classify lipids along with their functions and brief on Lipid Profile.
2. Discuss the transport of drugs across biological membranes.

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

1. Balanced Diet.
2. List the functions of calcium.
3. Define Basal Metabolic Rate and mention the factors affecting it.
4. Hyponatremia.
5. Brief about the factors affecting enzyme activity.
6. List the Mucokinetic agents with examples.
7. Give examples for bronchodilators. Mention its action and adverse effects.
8. Phenytoin - uses and dosage.
9. List the pharmacological action of Aspirin.
10. Succinyl choline - uses and mechanism of action.

[LP 1019]

OCTOBER 2019

Sub. Code: 1702

**M.Sc. CRITICAL CARE TECHNOLOGY EXAMS
FIRST YEAR
PAPER II – APPLIED BIOCHEMISTRY & PHARMACOLOGY
RELATED TO CRITICAL CARE**

Q.P. Code: 281702

Time: Three hours

Maximum: 100 Marks

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

1. Sources, RDA, functions and deficiency manifestations of Vitamin D.
2. Classify Antiepileptic drugs. Add a note on phenobarbitone.

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

1. Isoenzymes.
2. Basal Metabolic Rate.
3. Hyponatremia.
4. Sources, functions and deficiency manifestations of Vitamin B₁₂.
5. Functions of proteins.
6. Ketamine.
7. Nitrous oxide.
8. Glycopyrolate- mechanism of action and its uses.
9. Cough suppressants.
10. Ipratropium.

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

[AHS 0321]

MARCH 2021

Sub. Code: 1702

(OCTOBER 2020 EXAM SESSION)

M.Sc. CRITICAL CARE TECHNOLOGY

FIRST YEAR (From 2017-2018 onwards)

**PAPER II – APPLIED BIOCHEMISTRY AND PHARMACOLOGY RELATED
TO CRITICAL CARE**

Q.P. Code : 281702

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Define Isoenzymes and coenzymes with examples. Describe the enzymes increased in myocardial infarction.
2. Classify bronchodilators. Explain the mechanism of action of Xanthines.

II. Write Short Notes on:

(10x6 = 60)

1. Classification of Proteins.
2. Henderson – Hasselbach equation.
3. Basal Metabolic Rate.
4. Hyperkalemia.
5. Sources, RDA and Biochemical functions of thiamine.
6. Uses and mechanism of action of Flumazenil.
7. Inhaled Steroids.
8. Advantage of Nitrous oxide.
9. Paracetamol Poisoning.
10. Antibiotic resistance.

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

[AHS 0222]

**FEBRUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 1702

**M.Sc. CRITICAL CARE TECHNOLOGY
FIRST YEAR**

(Candidates admitted from 2017-2018 onwards - Paper II)

(Candidates admitted from 2020-2021 onwards - Paper III)

**PAPER II & III – APPLIED BIOCHEMISTRY AND PHARMACOLOGY
RELATED TO CRITICAL CARE**

Q.P. Code : 281702

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

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

1. Write in detail about the functions of Calcium and the factors regulating the blood calcium level. Explain in detail about hypercalcemia and hypocalcemia.
2. Enumerate Atropine substitutes. Describe the pharmacological actions, uses and adverse effects of Atropine.

II. Write Short Notes on: (10x6 = 60)

1. Pyruvate dehydrogenase complex.
2. Vitamin K cycle.
3. Comparison between Kwashiorkor and Marasmus.
4. Classification of Enzymes.
5. Explain: Molarity and Molality.
6. Adrenaline in critical care.
7. Pre anaesthetic Medication.
8. Uses & adverse effects of Aspirin.
9. Antitussives.
10. Kinetics of elimination.

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

[AHS 1022]

OCTOBER 2022

Sub. Code: 1702

M.Sc. CRITICAL CARE TECHNOLOGY

FIRST YEAR

(Candidates admitted from 2017-2018 onwards - Paper II)

(Candidates admitted from 2020-2021 onwards - Paper III)

**PAPER II & III – APPLIED BIOCHEMISTRY AND PHARMACOLOGY
RELATED TO CRITICAL CARE**

Q.P. Code : 281702

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Explain in detail about the classification of proteins with its functions.
2. Write in detail about Neuromuscular blockers.

II. Write Short Notes on:

(10x6 = 60)

1. Essential fatty acids.
2. Function of sodium and potassium.
3. Classify enzymes.
4. Niacin.
5. Basal metabolic Rate.
6. Nitrous oxide.
7. Inotropic agents.
8. Antihypertensive drugs.
9. Ipratropium.
10. Mucokinetics.
