[LD 1013] **OCTOBER 2013** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION

FIRST YEAR

PAPER I – APPLIED PHYSIOLOGY

Q.P. Code: 281301

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

Answer ALL questions

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

1. What are different types of Tissues in Human body and their functions.
2. Write in detail about Female Reproductive system and its disorders.

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

1. Explain Mitosis.
2. Cardiac Cycle.
3. Exchange of Respiratory gases.
4. Functions of Pancreatic juice.
5. Structure and functions of Kidney.
6. Neurotransmitters.
7. Taste perception.
8. Action of Thyroid Hormone on Metabolism.
9. Development of Cell mediated immunity.
10. Anemia.

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[LF 1014] **OCTOBER 2014** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION

FIRST YEAR

(2012-2014 Batch onwards)

PAPER I – APPLIED PHYSIOLOGY

Q.P. Code: 281301

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

Answer ALL questions

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

1. Define hemostasis. Explain the steps involved in intrinsic mechanism of clotting.
2. Define Cardiac cycle. What are its phases?
   Compare and contrast the features of iso-volumic contraction and relaxation.

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

1. Iron deficiency and Vitamin B12 deficiency anaemias.
2. Renin- angiotensin system.
3. Positive and negative feedback mechanisms along with examples.
4. What are the basic tastes? Describe the physiology of taste sensation.
5. Defecation reflex.
6. Tests for pregnancy.
7. Sequence of events in neuromuscular transmission.
8. Functions of Plasma proteins.
9. Transport of Oxygen.
10. Functions of hormones secreted by posterior pituitary gland.

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[LH 0415] **OCTOBER 2015** **Sub. Code: 1301**

M.Sc., CLINICAL NUTRITION
(from 2012-2014 onwards)
FIRST YEAR
PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. Draw and label normal ECG. Describe the waves, segments and intervals of normal ECG.
2. General functions of Thyroid Hormones.

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

1. Name the types of Epithelial tissue and indicate their chief function and location.
2. Hormonal control of lactation.
3. Describe taste pathway and explain how these receptors are activated.
4. Describe the composition and functions of Plasma.
5. Define synapse. Distinguish between electrical & chemical synapses.
6. Explain the various lung volumes and capacities.
7. Role of Bile in digestion.
8. Compare the general functions of the sympathetic and parasympathetic divisions.
9. Explain the functions of antibody.
10. Diffusion and its types.

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[LJ 1016] OCTOBER 2016 **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. Enumerate the hormones secreted by pituitary gland. Describe the actions and regulation of secretion of growth hormones. Add note on Dwarfism.

2. Define Hemostasis. Explain the steps involved in intrinsic mechanism of clotting.

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

1. Chemical control of respiration.
2. Mechanism of secretion of gastric juice.
3. Function of bile.
4. Renal function tests.
5. Contraceptive methods in females.
6. Posterior pituitary hormones.
7. Define synapse. Distinguish between electrical and chemical synapses.
8. Organ of corti.
9. Conductive system of heart.
10. Digestion and absorption of lipids.

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[LK 0517] MAY 2017 **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. Name the regulatory centres of respiration. Write in detail the chemical regulation of respiration.

2. What is anaemia? Describe in detail classification of anaemia. Add a note on Iron deficiency anaemia.

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

1. Name the anterior pituitary hormones. Add a note on cushing's syndrome.
2. Intestinal motility.
3. Auditory pathway.
4. Descending tracts of spinal cord.
5. Phases of cardiac cycle.
6. Heart sounds.
7. Blood groups.
8. Resting membrane potential.
9. Functions of kidney.
10. Active transport.

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[LL 1017] OCTOBER 2017 **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. What is erythropoiesis? Describe in detail about the stages and the factors regulating erythropoiesis. Add a note on nutritional anemia.

2. Define blood pressure. Write in elaborate about the factors affecting, regulating and control of blood pressure.

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

1. ABO blood groups.
2. Pacemaker and conductive tissues of heart.
3. Mechanics of ventilation.
4. Functions of liver.
5. Constituents of urine.
6. Synaptic transmission.
7. Structure and functions of internal ear.
8. Active transport.
9. Actions and regulation of growth hormone.
10. Male contraceptive methods.

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[LN 1018] OCTOBER 2018 **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. What is Haemostasis? Describe in detail about the Extrinsic & Intrinsic pathways of blood coagulation.

2. Discuss in detail about oxygen transport mechanism in the human body.

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

1. Physiological actions of growth hormone.
2. Functions of saliva.
3. Taste pathway.
4. Origin, course and termination of pyramidal tract.
5. Factors determining cardiac output.
6. Normal ECG tracing.
7. Erythroblastosis foetalis.
8. Structure of a Nephreon.
9. Functions of Mitochondria.
10. Female contraceptive methods.

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[LP 1019] OCTOBER 2019 **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. Define anemia. List the various types of anemia. Write in detail about the causes, clinical symptoms and signs with the investigations and management of iron deficiency anemia. Add a note on the preventive measures for anemia in school children.

2. What is Jaundice? Describe in elaborate the different type, causes, clinical presentation and treatment of jaundice. Add a note on liver function tests.

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

1. Blood grouping and Cross matching.
2. Active transport across the cell membrane.
3. Dietary recommendations and Exercise for hypertensive patients.
4. Respiratory centres.
5. Measurement of body fluids.
6. Hormones regulating serum calcium.
7. Optics of vision.
8. Non excretory functions of kidney.
9. Neuroendocrine reflex.
10. Theories of ageing.

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

[AHS 0321] **MARCH 2021** **Sub. Code: 1301**

(OCTOBER 2020 EXAM SESSION)

M.Sc. CLINICAL NUTRITION

FIRST YEAR (From 2012-2014 onwards)

PAPER I – APPLIED PHYSIOLOGY

Q.P. Code : 281301

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

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

1. Define Arterial Blood Pressure. Describe in detail the nervous regulation of Blood Pressure.
2. What is menstrual Cycle? Explain the ovarian changes taking place during menstrual cycle.

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

1. Functions of Glucocorticoids.
2. Active Transport.
3. Synaptic Transmission.
4. Plasma Proteins.
5. Colour vision.
6. Resting membrane potential.
7. Renal Function Test.
8. Digestion and absorption of fat.
9. Excitation contraction coupling.
10. Lung volumes and capacities.

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

[AHS 0222] **FEBRUARY 2022** **Sub. Code: 1301**
(OCTOBER 2021 EXAM SESSION)

M.Sc. CLINICAL NUTRITION
FIRST YEAR
(Candidates admitted from 2012-2014 onwards - Paper I)
(Candidates admitted from 2020-2021 onwards - Paper II)
PAPER I & II – APPLIED PHYSIOLOGY
Q.P. Code : 281301

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

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

1. Define immunity. Classify immunity and write in detail about cell mediated immunity
2. Describe in detail the synthesis and functions of thyroid hormones. Add a note on Hypothyroidism.

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

1. Cystometrogram
2. Intrinsic mechanism of clotting of blood
3. Functions of Placenta
4. Small intestinal movements
5. Taste Pathway
6. Carbondioxide Transport
7. Cardiac pacemaker potential
8. Pyramidal Tract
9. Functions of Lysosomes
10. Passive Transport

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