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

[AHS 1022] **OCTOBER 2022** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION
FIRST YEAR
(Candidates admitted from 2012-2013 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. Erythropoiesis – Definition, Site of Production, Stages and factors necessary for erythropoiesis .Add a note on regulation of Erythropoiesis.

2. Explain transport across cell membrane with suitable examples.

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

1. Physiology of growth and development.
2. Classification and functions of Antibodies.
3. Gastrointestinal hormones.
4. Lung Volumes and Capacities with Spirogram.
5. Cardiac Output and factors affecting it.
6. Renal function tests.
7. Pyramidal tract.
8. Mechanism of taste perception.
9. Functions of Insulin.
10. Menstrual cycle.

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

[AHS 1023] **OCTOBER 2023** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER 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 Anaemia and explain in detail the classification of Anaemia.

2. Describe in detail the functions of Thyroid hormones.

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

1. Functions of Liver.
2. Artificial Respiration.
3. Explain the Theories of Ageing.
4. Explain the properties of Cardiac muscle.
5. Body fluid compartments.
6. Cell mediated and Antibody mediated immunity.
7. Renal transplantation.
8. Synapse.
9. Visual Pathway.
10. Physiology of Lactation.

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

[AHS 0524] **MAY 2024** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER 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 Homeostasis and describe the two types of feedback loops with suitable examples.

2. What is Erythropoiesis? Where does it occur? Explain the sequence of events and how the rate of erythropoiesis is regulated by erythropoietin?

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

1. Mechanics of Respiration.
2. Gastrointestinal hormones.
3. Systemic and Pulmonary Circulation.
4. Classification and functions of Antibodies.
5. Renal function tests.
6. Pyramidal tract.
7. Mechanism of Taste perception.
8. Functions of Insulin.
9. Menstrual cycle.
10. Physiology of Ageing.

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

[AHS 1024] **OCTOBER 2024** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER II – APPLIED PHYSIOLOGY

Q.P. Code: 281301

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

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

1. Tissues and its functions.

2. Explain the events of Cardiac cycle.

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

1. Functions of Pancreatic juice.
2. Explain primary active transport with example.
3. Spermatogenesis.
4. Countercurrent mechanism of kidney.
5. Lung Volumes and Capacities with Spirogram.
6. Physiology of growth and development.
7. Name the complement pathways and write a note on classical complement pathway.
8. Functions of Autonomic Nervous system.
9. Auditory Pathway.
10. Posterior Pituitary hormones.

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

[AHS 0525] **MAY 2025** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER II – APPLIED PHYSIOLOGY

Q.P. Code: 281301

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

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

1. List the centers of respiration. Elaborate on the neural control of respiration. Add a note on artificial respiration.

2. Classify the transport mechanisms across cell membrane. Explain the active transport across cell membrane with suitable examples.

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

1. Nutritional anemias.
2. Excitation contraction coupling.
3. Neuroendocrine reflex.
4. Role of bile in digestion.
5. Transport of Oxygen.
6. Non excretory functions of the kidney.
7. Errors of refraction and its correction.
8. Gastric motility.
9. Explain the factors regulating cardiac output.
10. Trace the olfactory pathway.

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

[AHS 1025] **OCTOBER 2025** **Sub. Code: 1301**

M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER II – APPLIED PHYSIOLOGY

Q.P. Code: 281301

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

I. Elaborate on: **(2x20=40)**

1. Define Immunity. Classify Immunity and write in detail about cell mediated Immunity.

2. Mechanism on urine formation.

II. Write notes on: **(10x6=60)**

1. Anemia and its classification.
2. Conduction system of heart.
3. Defecation reflex.
4. Posterior Pituitary hormones.
5. Negative feedback mechanism with suitable examples.
6. Functions of Spinal cord.
7. Auditory Pathway.
8. Functions of female reproductive organs.
9. Theories of Ageing.
10. Mechanics of Respiration.

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