

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

[MBBS 0825]

AUGUST 2025

Sub. Code: 7053

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted from the Academic Year 2024-2025)

FIRST PROFESSIONAL – (CBME)

PAPER I – PHYSIOLOGY

Q.P. Code: 527053

Time: Three hours

Maximum: 100 Marks (80 Theory + 20 MCQs)

Answer All Questions

Draw neat labeled diagrams wherever necessary

I. Essay:

(1 x 10 = 10)

1. A 12 years old boy was brought to the emergency department with history of fever, poor intake of foods, breathlessness and loss of consciousness for past 1 day. His father revealed that he has been complaining of intense thirst in spite of drinking plenty of water. There is also history of gradual loss of weight over the past 3 months. His blood reports are as follows: Random Blood Sugar: 650 mgs/dl, urine Ketones 4+, with a normal renal function tests.
 - a) What is the diagnosis? (1)
 - b) What are the physiological mechanisms regulating blood glucose level in human body? (5)
 - c) Tabulate the actions of insulin. (2)
 - d) How will you differentiate between the different types of diabetes? (2)

II. Reasoning out short notes:

(2 x 5 = 10)

1. Rigor Mortis occurs after death - Reason out.
2. Peristalsis in gastrointestinal tract occurs in a unidirectional manner from oral to aboral direction – Reason out.

III. Write short notes on:

(10 x 6 = 60)

1. Apoptosis.
2. Genesis of RMP.
3. Megaloblastic Anaemia.
4. Properties of smooth muscle.
5. Achalasia cardia.
6. Factors regulating GFR.
7. Artificial Kidney.
8. Hypothyroidism.
9. Menstrual cycle.
10. Role of an Indian Medical Graduate.

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

[MBBS 1025]

OCTOBER 2025

Sub. Code: 7053

M.B.B.S. DEGREE EXAMINATION
(For the candidates admitted from the Academic Year 2024-2025)

FIRST PROFESSIONAL – SUPPLEMENTARY -(CBME)
PAPER I – PHYSIOLOGY

Q.P. Code: 527053

Time: Three hours

Maximum: 100 Marks (80 Theory + 20 MCQs)

Answer All Questions
Draw neat labeled diagrams wherever necessary

I. Essay: (1 x 10 = 10)

1. A 35 years old female was brought to the medicine Outpatient department with H/O Breathlessness, dyspnea on exertion associated with gradual loss of weight. On examination, pallor was noted in the conjunctiva, nail beds and the ear tips. She gives history of craving towards sand and charcoal. Her menstrual history revealed menorrhagia for the past 5 cycles.
 - a) Define Anemia. (2)
 - b) What are the various steps involved in erythropoiesis? (3)
 - c) How is it regulated? (3)
 - d) Add a note on Pernicious anemia.(2)

II. Reasoning out short notes: (2 x 5 = 10)

1. The secretion of pancreatic enzymes in the inactive form acts as a safety factor - Reason out.
2. Mineralocorticoids are essential for life - Reason out.

III. Write short notes on: (10 x 6 = 60)

1. Negative Feedback Mechanisms.
2. Explain the mechanism of secondary active transport in oral rehydration therapy.
3. Excitation contraction coupling.
4. Small intestinal Motility.
5. Erythroblastosis foetalis.
6. Diuretics.
7. Hypothyroidism.
8. Spermatogenesis.
9. Physiological changes during Pregnancy.
10. Responsibilities of a patient.
