003

FIRST M.B., B.S. EXAMINATION, JUNE 1990

Semester I

PHYSIOLOGY—I

ime : Three hours Maximum : 90 marks

(i) Answer ALL the questions.
(ii) Section A and Section B should be answered in separate answer books.
(iii) Section C must be answered separately on the answer sheet placed inside the question booklet as per the instructions given on the first page.
(iv) Draw diagrams wherever needed, for answers in Section A and B.

SECTION A

1. Give an account of the hormones of neurohypophysis. How are they regulated ? (15 marks)

2. Describe the composition function and regulation of secretion of pancreatic juice. (15 marks)

SECTION B

3. Write short notes on

(a) Anti-coagulants.
(b) Inulin clearance.
(c) Rh incompatibil'
(d) Ovulation
(e) Effects of castration in males before puberty.
(f) Innervation of urinary bladder and the role of nerves in micturition. (6×5=30 marks)

FIRST M.B., B.S. EXAMINATION, DECEMBER 1990

Semester I

PHYSIOLOGY—I

ne : Three hours Maximum : 90 marks

(i) Answer ALL the questions.

(ii) Sections A and B should be answered in separate answer-books.

(iii) Section C must be answered separately on the answer-sheet placed inside the question paper booklet as per the instructions given on the first page.

(iv) Draw diagrams wherever needed for answers in Sections A and B.

SECTION A

Describe the mechanism of regulation of body-ıter by the kidney. (15 marks)

Name the different protein fractions of plasma. hat is the normal concentration of each ? Describe the ınctions of each. (15 marks)

SECTION B

Write short notes on :

(a) Functions of saliva

(b) Muscle proteins

(c) Mention the hormones influencing spermato-genesis

(d) Acromegaly

(e) Placenta

(f) Small intestinal movements. (6×5=30 marks)

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FIRST M.B., B.S. EXAMINATION, NOVEMBER 1991.

First Semester

Part I

PHYSIOLOGY — I

Time : Two and a half hours. Maximum : 60 marks.

Answer ALL the questions.
Sections A and B should be answered in separate answer books.
Draw diagrams wherever necessary.

SECTION A

1. Describe the regulation of blood sugar level. (15 marks)

2. Describe the mechanism of urine formation. (15 marks)

SECTION B

3. Explain briefly :

(*a*) Composition and functions of lymph.
(*b*) Lactation.
(*c*) Hypo functions of thyroid gland.
(*d*) Functions of platelets.
(*e*) Vomiting.
(*f*) Reabsorption of water in tubules of kidney.
(6 × 5 = 30 marks)

[1002]

FIRST M.B., B.S. DEGREE EXAMINATION, APRIL 1992.

First Year

First Semester

PHYSIOLOGY—I

Time : Two and a half hours. Maximum : 60 marks.

SECTION A

1. Give an account of the hormones of the adrenal cortex, their site of production and the regulation of their secretion. (15 marks)

2. Describe the various stages and the factors regulating erythropoiesis. (15 marks)

SECTION B

3. Write short notes on :

(*a*) ECF volume.

(*b*) Types of gastrointestinal movement and factors affecting gastric motility.

(*c*) Effects of castration in a male before and after puberty.

(*d*) Role of pancreas as an endocrine gland.

(*e*) Describe briefly how miturition takes place.

(*f*) Glomerular Filteration Rate (G.F.R.).

(6 × 5 = 30 marks)

DECEMBER 1992

1002]

FIRST M.B.B.S. DEGREE EXAMINATION

First Semester

PHYSIOLOGY - I

Time : Three hours Maximum : 90 marks

Separate answer books must be used for Sec.A and B
Section C must be answered separately on the answer sheet provided as per instructions on the first page

Answer ALL the questions

SECTION A - (2 x 15 = 30 marks)

1. Describe the filling and emptying of the Urinary Bladder. How is micturition controlled?

2. Outline the mechanism of clotting of blood. Mention the defects giving rise to hemorrhagic disorders.

SECTION B - (6 x 5 = 30 marks)

3. Write short notes on:

(a) Tissue fluids

(b) Tetany

(c) Foeto-Maternal Unit

(d) Gastric Juice

(e) Sarco Tabular System

(f) Feed-back Mechanism

November-1993

PR 102]

FIRST M.B.B.S. DEGREE EXAMINATION

First Semester

Paper II - PHYSIOLOGY - I

Time : Three hours Maximum : 90 marks

Separate answer books must be used for Sec.A and B
Section C must be answered separately on the answer sheet
provided as per instructions on the first page

Answer ALL the questions

SECTION A - (2 x 15 = 30 marks)

1. Give an account of the gastro-intestinal hormones with reference to

   (a) Site of production

   (b) Regulation of Secretion

   (c) Function

2. Describe the synthesis, storage, release and actions of adrenal medullary hormones.

SECTION B - (6 x 5 = 30 marks)

3. Write short notes on:

   (a) Ionic basis of muscle contraction

   (b) Role of kidney in the maintenance of water balance in the body

   (c) Phases of menstrual cycle

   (d) Erythroblastosis foetails

   (e) Measurements of body fluid volume in different compartments

   (f) Cushing syndrome

April 1994

[VM 207]

FIRST M.B.B. :. DEGREE EXAMINATION

New Regulations

PART - I

Paper II — PHYSIOLOGY - I

Time : Three hours Maximum : 100 marks

(1) Separate answer books must be used for Section A and B.

(2) Section C must be answered separately on the answer sheet placed inside the question paper booklet as per the instruction on the first page.

(3) Answer ALL the questions.

SECTION A (2 × 15 = 30)

1. Describe the developmental states in Erythropoiesis and state the substances required for their maturation.

2. Enumerate the hormone of the Anterior pituitary. Briefly explain the mechanism of their Secretion Discuss the actions of Growth Hormone and their pisorders.

SECTION B (8 × 5 = 40)

Write short notes on :

(a) Body Fluid compartments

(b) Sarco Tubular system

(c) Transfusion Reactions

(d) Gastric Pouches

(e) Foeto maternal unit

(f) Role of pancreas as an endocrine gland

(g) Latest Pregnancy Tests

(h) Juxta Glomerula apparatus

November 1994

[ND 507]

FIRST M.B.B.S. DEGREE EXAMINATION.

(New Regulation)

Part I

Paper II — PHYSIOLOGY — I

Time : Three hours Maximum : 100 marks

(1) Separate answer book must be used for Section A and B.

(2) Section C must be answered separately on the answer sheet placed inside the question paper booklet as per instruction on the first page.

(3) Answer ALL the questions.

SECTION A — (2 × 15 = 30 marks)

1. Describe the mechanism of coagulation with a note on coagulation disorders.

2. Describe the synthesis, actions and effects, of dysfunctioning of Thyroid Hormones.

SECTION B — (8 × 5 = 40 marks)

3. Write short notes on :

(a) Juxta glomerular apparatus.

(b) Cystometrogram.

(c) Endocrine control of menstrual cycle.

(d) Oral contraceptive.

(e) Chemical regulation of Pancreatic juice secretion.

(f) Myoneural junction.

(g) Phases of secretion of gastric juice.

(h) Transport across a semipermeable membrane.

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April-1995

SB 502]

FIRST M.B.B.S. DEGREE EXAMINATION

(Old Regulations)

Part I

Paper II - PHYSIOLOGY - I

Time : Three hours Maximum : 90 marks

Separate answer books must be used for Sec.A and B
Section C must be answered separately on the answer sheet provided as per instructions on the first page

Answer ALL the questions

SECTION A - (2X15=30 marks)

1. Describe the synthesis, regulation and functions of Aldo one Add a note on Addisonian crisis.

2. Describe the various phases and mechanism of gastriction, and regulation with experimental evidence.

SECTION B - (6 x 5 = 30 marks)

3. Write short notes on:

(a) Rigor Mortis

(b) Structure and function of Macrophages

(c) Tests to detect ovulation

(d) Distal convoluted tubule

(e) Plasma proteins

(f) Sarcotubular system

November-1995

MB 502]

FIRST M.B.B.S. DEGREE EXAMINATION

(Old Regulations)

Part I

Paper II - PHYSIOLOGY - I

Time : Three hours Maximum : 90 marks

Separate answer books must be used for Sec.A and B
Section C must be answered separately on the answer sheet
provided as per instructions on the first page

Answer ALL the questions

SECTION A - (2 x15 = 30 marks)

1. Describe the process of urine formation in the kidney? How is urine made hypertonic?

2. What is the normal blood calcium level? Give an account of the hormonal regulation of blood calcium. What are the clinical tests by which you can detect Tetany in a patient?

SECTION B - (6 x 5 = 30 marks)

3. Write short notes on:

(a) Functions of platelets

(b) Differences between the actions of Adrenaline and Nor Adrenaline

(c) Gating of channels

(d) Functions of Large Intestine

(e) Extra Cellular fluid volume and tests to determine it

(f) Puberty

[AK 507] Sub. Code : 4007

FIRST M.B.B.S. DEGREE EXAMINATION.

(New Regulations)

Part I

Paper II — PHYSIOLOGY I

Time : Three hours Maximum : 100 marks

Two and a half hours for Sec. A and B — Sections A and B : 70 marks

1. Answer ALL questions.
2. Sections A and B should be answered in separate answer books.
3. Section C must be answered separately on the answer sheet provided, as per the instructions given in the first page.

SECTION A — (2 × 15 = 30 marks)

1. Describe the mechanism of HCl secretion and its regulation during the different phases of gastric secretion.

2. Describe the mechanism of water absorption in the different segments of Renal tubule.

SECTION B — (8 × 5 = 40 marks)

Write short notes on :

(a) Membrane transport proteins.

(b) Anticoagulants.

(c) Acidification of urine.

(d) Fetoplacental unit.

(e) Mechanism of muscle contraction (sliding filamen theory).

(f) Erythropoiesis.

(g) Hormonal control of plasma calcium.

(h) Genetic basis of sex determination.

October 1996

[PK 512] **Subject Code : 4012**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Revised Regulations)

Part I

Paper II — PHYSIOLOGY — I

Time : Three hours Maximum : 100 marks

Separate answer books must be used for Section A and B.

Section C must be answered separately on the answer sheet provided, as per the instruction on the first page.

Answer ALL the questions.

SECTION A — (35 marks)

1. Describe the structure of the Glomerular Filter Bed and the factors affecting G.F.R. Explain why Inulin clearance indicates G.F.R. (15)

2. Write short notes on :

(a) Nernst Equilibrium potential.

(b) Life span of RBC and methods to determine the same.

(c) Disadvantages of transfusing, blood stored for more than three weeks.

(d) Defecation reflex. (4 × 5 = 20)

SECTION B — (35 marks)

3. Give an account of the secretion, storage, release and function of the Neuro hypophyseal hormones. Add a note on diabetes insipidus. (15)

4. Write short notes on :

(a) Synthesis of Adrenalin and Nor-adrenalin by Adrenal Medulla.

(b) Human chorionic Gonadotrophins.

(c) Compliance of lungs.

(d) Artificial respiration. (4 × 5 = 20)

[MP 512] Sub. Code : 4012

FIRST M.B.B.S. DEGREE EXAMINATION.

(Revised Regulations)

Part I

Paper II — PHYSIOLOGY —

Time : Three hours Maximum : 100 marks

Two and a half hours for Section A and B Section A & B : 70 marks

Answer ALL questions.

Sections A and B should be answered in separate answer books.

Section C must be answered separately on the answer sheet provided, as per the instructions given in the first page.

SECTION A — (35 marks)

1. Mention the different types of smooth muscles. Discuss their difference in structure, function and energetics when compared to that of a skeletal muscle. (15)

2. Write notes on : (4 × 5 = 20)

(a) Facilitated diffusion.

(b) Functions of Neutrophils.

(c) Micturition reflex.

(d) Carbohydrate digestion.

SECTION B — (35 marks)

3. Discuss the synthesis and functions of thyroxine. What would be the abnormalities seen during the hyper and hyposecretion of the hormone? (15)

[MP 512]

Write notes on : (4 × 5 = 20)

(a) Define FRC (Functional Residual Capacity), RV (Residual Volume) and Minimal Volume. What is their clinical significance.

(b) IUCD.

(c) Concept of renal clearance.

(d) Feed back mechanisms in the regulation of hormones.

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April-1997

MP 505]

FIRST M.B.B.S. DEGREE EXAMINATION

(Old Regulations)

Part II - **Paper II - PHYSIOLOGY**

Time : Three hours Maximum : 90 marks

Separate answer books must be used for Sec.A and B

Section C must be answered separately on the answer sheet

provided as per instructions on the first page

Answer ALL the questions

SECTION A - (30 marks)

1. Classify synapses and describe the mechanism of transmission across the synapse. Mention the various properties of synapse. Add a note on central neuro transmitters.

2. Write briefly on: (3X5=15)

(a) Composition of CSF and their functions

(b) Theories of hearing

(c) Accommodation of near vision

SECTION B - (30 marks)

3. Define giving normal values

(a) Arterial blood pressure

(b) pulse pressure

(c) Mean arterial pressure

What is the difference between end arterial pressure and lateral pressure. Discuss the chief determinants of arterial blood pressure. (15)

4. Write short notes on: (3X5=15)

(a) Special features of pulmonary circulatic

(b) Draw a normal electro cardiogram and label their components

(c) Anemic Hypoxia

April-1997

MP 505]

FIRST M.B.B.S. DEGREE EXAMINATION

(Old Regulations)

Part II - **Paper II - PHYSIOLOGY**

Time : Three hours Maximum : 90 marks

Separate answer books must be used for Sec.A and B

Section C must be answered separately on the answer sheet

provided as per instructions on the first page

Answer ALL the questions

SECTION A - (30 marks)

1. Classify synapses and describe the mechanism of transmission across the synapse. Mention the various properties of synapse. Add a note on central neuro transmitters.

2. Write briefly on: (3X5=15)

(a) Composition of CSF and their functions

(b) Theories of hearing

(c) Accommodation of near vision

SECTION B - (30 marks)

3. Define giving normal values

(a) Arterial blood pressure

(b) pulse pressure

(c) Mean arterial pressure

What is the difference between end arterial pressure and lateral pressure. Discuss the chief determinants of arterial blood pressure. (15)

4. Write short notes on: (3X5=15)

(a) Special features of pulmonary circulatic

(b) Draw a normal electro cardiogram and label their components

(c) Anemic Hypoxia

October 1997

[MS 512] **Sub. Code : 4012**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Revised Regulations)

Part I

Paper II — PHYSIOLOGY — I

: Three hours | Maximum : 100 marks

and a half hours | Sec. A & B : 70 marks

Sec. A and B | Section C : 30 marks

Sections A and B should be answered in separate answer books.

Section C must be answered separately on the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Describe the electron microscopic structure of the tal muscle. Briefly write about the excitation–contraction ling in skeletal muscle. What is the role of calcium in tal muscle contraction? (15)

Write short notes on : (4 × 5 = 20)

(a) Membrane transport mechanisms.

(b) Anticoagulants.

(c) Functions of bile salts.

(d) Cellular immunity.

[MS 512]

SECTION B

3. Describe the composition, functions and phases of gastric secretion. (15)

4. Write short notes on : (4 × 5 = 20)

(a) Artificial respiration.

(b) Glomeruler filtration rate.

(c) Thermo regulation by skin.

(d) Cushing's syndrome.

[SM 507]

Sub. Code : 4007

FIRST M.B.B.S. DEGREE EXAMINATION.

(Old/New Regulations)

Part I

Paper II — PHYSIOLOGY — I

Time : Three hours — Maximum : 100 marks

Two and a half hours — Sec. A & Sec. B : 70 marks

for Sec. A and Sec. B — Section C : 30 marks

Separate answer books must be used for Sections A and B.

Section C must be answered separately on the answer sheet provided as per the instructions on the first page.

Answer ALL questions.

SECTION A

1. Enumerate the hormones of the adrenal gland. Give in detail the actions of aldosterone and the mechanisms that regulate its secretion. (15)

2. Write short answers on : (4 × 5 = 20)

(a) Neuromuscular function

(b) Spermatogenesis.

(c) Second messenger.

(d) Compare and contrast humoral and cellular immunity.

SECTION B

3. What is the composition of gastric juice? Describe the different phases of gastric secretion. What are the effects of total gastrectomy. (15)

4. Write short answers on : (4 × 5 = 20)

(a) Describe the movements of the stomach. What factors influence them.

(b) Micturition reflex.

(c) Give the structure and functions of platelets.

(d) Reabsorptive functions of the Renal Tubules.

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April-1999

[SG 512] **Sub. Code : 4012**

FIRST M.B.B.S. DEGREE EXAMINATION.

(Revised Regulations)

Part I

Paper II — PHYSIOLOGY — I

Time : Three hours — Maximum : 100 marks

Two and a half hours — Sec. A & Sec. B : 70 marks

for Sec. A and Sec. B — Section C : 30 marks

Separate answer books must be used for Sections A and B.

Section C must be answered separately on the answer sheet provided as per the instructions on the first page.

Answer ALL questions.

SECTION A

1. Give an account of the composition, regulation of secretion and functions of pancreatic juice. (15)

2. Write short notes on : (4 × 5 = 20)

(a) Functions of platelets.

(b) Intercellular connections.

(c) Juxtaglomerular apparatus.

(d) Transfusion reactions.

SECTION B

3. What is the normal level of glucose in the blood? How is blood glucose maintained within normal limits? (15)

4. Short notes on : (4 × 5 = 20)

(a) Spermatogenesis.

(b) Hering–Brever Reflex.

(c) Surfactant.

(d) Measurement of renal blood flow.

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Sub. Code : 4007

FIRST M.B.B.S. DEGREE EXAMINATION.

(New Regulations)

Part I

Paper II — PHYSIOLOGY — I

Time : Three hours — Maximum : 100 marks

Two and a half hours for Sec. A & Sec. B — Sec. A & B : 70 marks

Section C : 30 marks

Separate answer books must be used for Sections A and B.

Section C must be answered separately on the answer sheet provided as per the instructions on the first page.

Answer ALL questions.

SECTION A

1. Describe the structure of the Glomerular filter bed and the factors affecting GFR explain why Inulin clearance indicates GFR. (15)

2. Write briefly on: (4 × 5 = 20)

(a) Role of vasa recta in concentration of urine.

(b) Mechanism of glycosuria in diabetes mellitus.

(c) Mechanism of action of hormones on target cells.

(d) Cushing's syndrome.

SECTION B

3. Describe the hormonal and endometrial changes occurring during a normal menstrual cycle. (15)

4. Write briefly on: (4 × 5 = 20)

(a) Physiological role of glucagon.

(b) Contraceptive methods for the male.

(c) Neuroendocrine reflex.

(d) Fetoplacental unit.