

April-2001

[KD 502]

Sub. Code : 4002

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

(Non-Semester)

(Revised Regulations)

Paper III — PHYSIOLOGY INCLUDING
BIOPHYSICS — I

Time : Three hours

Maximum : 50 marks

Two and a half hours

Theory : 35 marks

for Theory and 30 minutes

MCQ : 15 marks

for MCQ

MCQ must be answered separately on the
answer sheet provided.

Answer ALL questions.

1. Describe different phases of Gastric juice secretion
with experimental evidence. Add a note on mucosal
barrier and gastric ulcer. (5 + 3 + 2 = 10)

2. Short notes on : (10 × 2½ = 25)

- (a) Exocrine functions of pancreas.
- (b) Mismatched blood transfusion.
- (c) Acidification of urine.
- (d) Infertility in a female.
- (e) Sacromere.

- (f) Facilitated diffusion.
- (g) Pregnancy Tests.
- (h) Functions of Plasma Proteins.
- (i) Anti Coagulant.
- (j) Counter current exchanges.

April-2001

[KD 502 A]

Sub. Code : 4053

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

(Non-Semester)

(Revised Regulations)

Paper III — PHYSIOLOGY INCLUDING
BIOPHYSICS — I

Time : Three hours Maximum : 100 marks

Two and a half hours Theory : 70 marks

for Theory and MCQ 30 minutes MCQ : 30 marks

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

Answer ALL questions.

Draw diagrams wherever necessary.

1. Classify the hormones of the Adrenal Cortex.
Describe the actions and the regulation of Secretion of
Glucocorticoids. (15)

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

(a) Vasa recta

(b) Neuromuscular blocking agents

(c) Hormones regulating pancreatic exocrine
secretion

(d) Tests to establish Fertility in males and
Females.

3. Name the plasma proteins and their
concentrations. What are the functions of the plasma
proteins and what is plasmapheresis? (15)

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

(a) What are the types of sweat glands in the
body? What is the role of sweat gland in body
temperature regulation?

(b) Compound Action Potential

(c) Thiocyanate space

(d) What is LH surge and its physiological
importance?

November-2001

[KE 502 A]

Sub. Code : 4053

FIRST M.B.B.S. DEGREE EXAMINATION.
(Non-Semester — Revised Regulations)
Paper III — PHYSIOLOGY INCLUDING
BIO-PHYSICS — I

Time : Three hours Maximum : 100 marks

Theory : Two and a half hours Theory : 70 marks

M.C.Q. : Half an hour M.C.Q. : 30 marks

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

Answer ALL questions.

Draw diagrams wherever necessary.

1. Describe synthesis, actions and regulation of thyroid hormones. Add a note on clinical manifestations of hypo and hyper secretions of this hormone. (15)

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

(a) Give an account of intestinal phase of secretion of pancreatic juice.

(b) Discuss the pituitary and ovarian hormonal support of a normal menstrual cycle.

(c) Give an account of absorption of water in the renal tubules.

(d) Discuss the ionic basis of resting membrane potential and action potential.

3. Discuss the intrinsic pathway of blood coagulation. Add a note on functions of platelets. (15)

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

(a) ABO blood group system.

(b) Spermatogenesis.

(c) Regulation of acid — base balance by kidney.

(d) Micturition.

March-2002

[KG 502 A]

Sub. Code : 4053

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

(Non-Semester — Revised Regulations)

Paper III — PHYSIOLOGY INCLUDING
BIO-PHYSICS — I

Time : Three hours Maximum : 100 marks

Theory : Two and a half hours Theory : 70 marks

M.C.Q. : Half an hour M.C.Q. : 30 marks

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

Answer ALL questions.

Draw diagrams wherever necessary.

1. Describe the functions and regulation of Insulin.
Add a note on Polyurea. (15)

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

- (a) Inulin and Para amino hippuric acid
- (b) Hormonal support of menstrual cycle
- (c) Renin-Angiotensin system
- (d) Tests for Pregnancy.

3. Describe the ABO and Rh blood groups. Add a
note on cross-matching. (15)

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

- (a) Sarcomere and sarcoplasmic reticulum
 - (b) Regulation of Saliva secretion
 - (c) Intestinal movements
 - (d) Molecular basis for Action potential.
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September-2002

[KH 502 A]

Sub. Code : 4053

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

(Non-Semester — Revised Regulations)

Paper III — PHYSIOLOGY INCLUDING
BIO-PHYSICS — I

Time : Three hours Maximum : 100 marks

Theory : Two and a half hours Theory : 70 marks

M.C.Q. : Half an hour M.C.Q. : 30 marks

M.C.Q. must be answered SEPARATELY on the
answer sheet provided as per the instructions on the
first page.

Answer ALL questions.

Draw diagrams wherever necessary.

1. Describe the functions of Growth Hormone. What are the clinical disorder associated with it? (15)
2. Write short notes on : (4 × 5 = 20)
 - (a) Peristalsis
 - (b) Glomerulo feed back
 - (c) Tests of ovulation
 - (d) Heat stroke.

3. Describe Erythropoiesis. What are the factors regulating it? (15)

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

- (a) Molecular basis of muscle contraction
- (b) Mechanism of HCl secretion
- (c) Defecation reflex
- (d) Compartments of body fluids.

[KL 502]

Sub. Code : 4053

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

(Non-Semester — Revised Regulations)

Paper III — PHYSIOLOGY INCLUDING
BIO-PHYSICS — I

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

Essay Questions : (2 × 15 = 30)

(1) Describe the mechanism of concentration of urine.

(2) Discuss the actions and regulation of secretion of glucocorticoids. Write a note on its applied physiology.

II. Write short notes on : (10 × 5 = 50)

(a) What are plasma proteins? Mention their types and discuss their functions.

(b) Describe the pharyngeal stage of deglutition.

(c) Inter cellular connections.

(d) Nerve action potential.

(e) Physiological effects of thyroid hormones.

(f) Contraceptive methods.

(g) Neuro endocrine reflex.

(h) Small intestinal movements.

(i) Discuss the morphology and functions of platelets.

(j) Cell mediated immunity.

[KO 502]

Sub. Code : 4053

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

Revised (Non-Semester) Regulation

Paper III — PHYSIOLOGY INCLUDING
BIO PHYSICS — I

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL the questions.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) Describe stages of erythropoiesis and factors controlling it.

(2) Describe steps of synthesis regulation and functions of cortisol.

II. Short notes : (10 × 5 = 50)

(a) Ultra structure of skeletal muscle.

(b) Deglutition.

(c) Give composition and functions of gastric juice.

(d) Erythroblastosis fetalis.

(e) Describe nerve supply to urinary bladder and micturition.

(f) Thrombocyte.

(g) Ovarian cycle.

(h) Describe hormones acting on the breast.

(i) Describe functions of skin.

(j) Thyrotoxicosis.

[KP 502]

Sub. Code : 4053

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

Revised (Non-Semester) Regulation

Paper III — PHYSIOLOGY INCLUDING
BIO PHYSICS — I

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL the questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :

(1) Enumerate the hormones of the adrenal cortex. Describe the functions and regulation of glucocorticoids. Add a note on Cushing's syndrome. (20)

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

(3) Write an essay on Immunity. (15)

II. Short notes : (6 × 5 = 30)

- (a) Fate of haemoglobin after haemolysis.
 - (b) Movements of small intestine.
 - (c) Steps involved in formation of urine.
 - (d) Spermatogenesis.
 - (e) Neuroendocrinal reflex.
 - (f) Adrenogenital syndrome.
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[KQ 502]

Sub. Code : 4053

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

Non-Semester

(Revised Regulation)

Paper III — PHYSIOLOGY INCLUDING
BIOPHYSICS – I

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

I. Essay questions :

(1) Describe glucose homeostasis in detail. Briefly explain GTT. Add a note on Diabetes Mellitus and physiological basis of its treatment. (20)

(2) Describe Menstrual cycle in detail and explain the hormonal control involved in various phases. Add a note on Pregnancy tests. (15)

(3) Describe in detail how urine is concentrated in the kidney. Add a note on kidney function tests. (15)

II. Short notes :

(6 × 5 = 30)

(a) Blood Groups.

(b) Anticoagulants.

(c) Micturition reflex.

(d) Fat Absorption.

(e) Plasma Proteins.

(f) Gastro-Intestinal Hormones.

[KR 502]

Sub. Code : 4053

3. Write short notes on :

(10 × 5 = 50)

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

Non-Semester

(Revised Regulation)

Paper III — PHYSIOLOGY INCLUDING
BIOPHYSICS — I

Time : Three hours Maximum : 100 marks

Descriptive : Two hours and Descriptive : 80 marks
forty minutes

Objective : Twenty minutes Objective : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

Essay questions :

1. Define haemostasis. Explain the steps involved in Intrinsic mechanism of clotting. Add a note on haemophilia. (15)
2. Describe in detail the phases of deglutition. (15)

- (a) Artificial kidney
- (b) Feed back mechanisms
- (c) Female contraceptives
- (d) Nerve Action Potential
- (e) Hypo-Thyroidism
- (f) 'B' lymphocytes
- (g) Cytoskeleton
- (h) Erythropoietin
- (i) Calcitonin
- (j) Functions of blood.

FEBRUARY 2008

[KS 502]

Sub. Code : 4053

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

Non-Semester

(Revised Regulation)

Paper III — PHYSIOLOGY INCLUDING
BIOPHYSICS – I

Q.P. Code : 524053

Time : Three hours

Maximum : 100 marks

Descriptive : Two hours and
forty minutes

Descriptive : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

I. Essays:

1. Discuss the regulation of Serum Ca^{2+} concentration. What is Tetany? How do you treat it? (15)
2. Enumerate the functions of Liver and write about Jaundice. (15)

II. Short notes :

(10 × 5 = 50)

1. Ovulation.
2. Glomerular Filtration Rate.
3. Physiologic principles of Tissue Transplantation.
4. Micturition.
5. Movements of small intestine.
6. T Lymphocytes.
7. Enzymes of Exocrine Pancreas.
8. Corpus Luteum.
9. Tubular maximum for Glucose.
10. Reactions due to incompatible blood transfusion.
What is Autologous Transfusion?