[KT 502] **AUGUST 2008** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

Draw Suitable diagrams wherever necessary

I. Essay Questions : **(2 x 15 = 30)**

1. What is menstrual cycle.
   Explain the ovarian changes taking place during menstrual cycle.

2. What are different types of salivary glands?
   Describe the composition, functions and regulation of secretion of saliva.

II. Write Short notes on : **(10 x 5 = 50)**

1. Write the features of Acromegaly.
2. Tubuloglomerular feedback.
3. Explain mechanism of secretion of hydrochloric acid in stomach.
4. Explain extrinsic mechanism of coagulation of blood.
5. Write the functions of platelets.
6. Write the actions of parathormone.
7. Cystometrogram.
8. Explain Neuroendocrine reflex.
9. Erythroblastosis Foetalis.
10. Haemophilia.

III. Short Answer Questions : **(10 x 2 = 20)**

1. Functions of Eosinophil.
2. Name anticoagulants used in laboratory.
3. Write differences between adult haemoglobin and foetal haemoglobin.
4. Write functions of sertoli cells.
5. Write functions of large intestine.
6. Migrating Myoelectric Complex (MMC).
7. Achalasia Cardia.
8. Name hormones of the hypothalamus.
9. Write the actions of prolactin.
10. Name second messengers.

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[KU 502] **FEBRUARY 2009** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

Draw Suitable diagrams wherever necessary

I. Essay Questions : **(2 x 15 = 30)**

1. Describe in detail the synthesis and functions of thyroid hormones.
   Add a note on Hypothyroidism.
2. Describe the composition, functions and regulation of secretion of gastric juice.

II. Write Short notes on : **(10 x 5 = 50)**

1. Composition of semen and its uses as a diagnostic tool.
2. Functions of juxtaglomerular apparatus.
3. Explain components and functions of bile.
4. Explain the stages of development of erythrocytes.
5. Describe the metabolic actions of cortisol.
6. Describe briefly the formation and functions of corpus luteum.
7. Describe the formation and circulation of lymph.
8. Enumerate the hormones secreted by anterior pituitary gland.
   Describe the actions of growth hormone.
9. Classify the fluid compartments of body giving their normal values
   mention two methods to determine E.C.F.
10. Describe the formation and functions of immunoglobulins.

III. Short Answer Questions : **(10 x 2 = 20)**

1. Briefly describe the process of deglutition.
2. Heparin.
3. Name two indications of exchange transfusion.
4. Purpura.
5. Plasma cells.
6. Functions of plasma proteins.
7. Phagocytosis.
8. Physiological basis of pregnancy diagnosing tests.
9. Role of oxytocin in female reproduction.
10. List the important functions of saliva.

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[KV 502] **AUGUST 2009** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

Draw Suitable diagrams wherever necessary

I. Essay Questions : **(2 x 15 = 30)**

1. Enumerate the NUCLEI of Hypothalamus. Explain the connections and functions of hypothalamic obesity.
2. Explain the counter current mechanism in the concentration of urine. Add a note on diuresis.

II. Write Short notes on : **(10 x 5 = 50)**

1. Micturition reflex.
2. Gastric emptying.
3. Indicators of ovulation.
4. Myxoedema.
5. Entero hepatic circulation of bile.
6. Chonn's syndrome.
7. Functions of glucocorticoids.
8. Significance of Rh group.
9. A Transport mechanisms across cell membrane.
10. Albumin : Globulin Ratio.

III. Short Answer Questions : **(10 x 2 = 20)**

1. Actions of Insulin.
2. Estrogen – Functions.
3. Aldosterone escape.
4. Function of saliva.
5. Significance of erythrocyte sedimentation rate.
6. Functions of corpus luteum.
7. Blood – testis barrier.
8. GAP junctions.
9. Glomerular filtration rate.
10. Dietary fibre.

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[KW 502] **FEBRUARY 2010** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

I. Essay Questions : **(2 x 15 = 30)**

1. Describe the enteric and colonic movements.
   Discuss the role of the enteric nervous system. Add a note on defaecation.

2. How did Hans Selye, group the adrenocortical hormones?
   Elucidate their physiological functions.

II. Write Short notes on : **(10 x 5 = 50)**

1. Cells in fibrous tissue, their functions.
2. Functional categorization of plasma proteins.
3. Starling forces and oedema.
4. Digestive proteases.
5. Transporters of amino acids in gut and kidney.
6. Counter current in juxtamedullary nephrons.
7. Abnormalities of micturition.
8. Actions of parathormone.
9. Neuro humoral reflexes.
10. Immunological test for pregnancy.

III. Short Answer Questions : **(10 x 2 = 20)**

1. Measurement of total body water.
2. Lipids in cell membrane.
3. Remodelling of bone tissue.
4. Landsteiner’s laws.
5. Fibrinolysis.
6. Lingual lipase.
7. Limiting PH of urine.
8. Leptin.
9. Mullerian regression factor.
10. Composition of semen.

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[KX 502] **AUGUST 2010** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

I. Essay Questions : **(2 x 15 = 30)**

1. Name the different blood group systems. Mention the importance of blood groups. Explain the procedure for determining the blood group of an individual. Give the basis and principles of treatment of Erythroblastosis Foetalis.
2. Name any four hormones producing Hyperglycemia. Explain the actions of the chief hypoglycemic hormone on liver, skeletal muscle and adipose tissue. Briefly explain GTT. Add a note on diabetes Mellitus and Physiological basis of its treatment.

II. Write Short notes on : **(10 x 5 = 50)**

1. Describe the phases of gastric juice secretion.
2. Micelle formation.
3. Describe cystometrogram.
4. Functions of Sertoli cells.
5. Functions of Placenta.
6. Plasma proteins.
7. Hepatic and gall bladder bile.
8. Deglutition.
9. Differences between cretinism and Dwarfism.
10. Explain the hormonal regulation of menstrual cycle.

III. Short Answer Questions : **(10 x 2 = 20)**

1. Phagocytosis.
2. Role of sweat glands in thermoregulation.
3. 'B' lymphocytes in immunity.
4. ESR and its clinical significance.
5. Foetoplacental unit.
6. Actions of relaxin and inhibins.
7. Endogenous Pyrogens.
8. Defaecation reflex.
9. PAH clearance.
10. Brown fat tissue.

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[KY 502] **FEBRUARY 2011** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

I. Essay Questions : **(2 x 15 = 30)**

1. Write in detail the electron microscopic structure of skeletal muscle and the molecular mechanism of muscular contraction.
2. Discuss the composition, mechanism and regulation of gastric secretion.

II. Write Short notes on : **(10 x 5 = 50)**

1. Neuro muscular junction.
2. Regulation of salivary secretions.
3. Functions of pancreatic juice.
4. Erythropoiesis.
5. Micturition reflex.
6. Spermatogenesis.
7. Glucagon.
8. Foeto placental unit.
9. Secondary active transport.
10. Fibrinolytic system.

III. Short Answer Questions : **(10 x 2 = 20)**

1. Milieu interior.
2. Function of large intestine.
3. Steatorrhea.
4. Dietary fibre.
5. Multi unit smooth muscle.
6. Sarcomere.
7. Cytokines.
8. Auto immune disease.
9. Na+k+pump.
10. EMG.

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[KZ 502] **AUGUST 2011** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

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

Answer **ALL** questions

I. Essay Questions : **(2 x 10 = 20)**

1. Define GFR. Explain briefly about mechanism of factors regulating GFR.
2. Define Haemostasis. Describe briefly about the mechanism of clotting. Add a note on hemophilia.

II. Write Short notes on : **(10 x 5 = 50)**

1. Resting membrane potential.
2. Negative feedback mechanism with example.
3. Pathophysiology of Diabetes mellitus
4. Small intestinal movements.
5. Neuro endocrinal reflex.
6. Functions of placenta.
7. Describe the phases of gastric juice secretion.
8. Hormonal regulation of menstrual cycle.
9. Dwarf.
10. Composition & Functions of saliva.

III. Short Answer Questions : **(15 x 2 = 30)**

1. Four functions of plasma protein.
2. Helper cells.
3. Kernicterus.
4. Secondary active transport.
5. Rigor mortis.
6. Name the Second messengers.
7. Name the hormones involved for the growth.
8. What is Turner's syndrome – three features?
9. APUD cells of its secretion.
10. Law of intestine.
11. Double Bhor effect.
12. Aldosterone escape.
13. What are different types of water absorption?
14. What is Houssay animal?
15. Name the hormones involved in calcium homeostasis, and the main organs that will act.

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[LA 502] **FEBRUARY 2012** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

Revised (Non-Semester) Regulations

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q. P. Code : 524053

Time : Three hours **Maximum: 50 Marks**

Answer **ALL** questions in the same order.

I. Elaborate on :

1. Explain the sliding filament hypothesis and outline the main events in the cross-bridge cycle. **(1 x 10 = 10)**

2. What are the components of gastric secretion? Explain the regulation of gastric secretion. **(1 x 5 = 5)**

II. Write notes on: **(10 x 2 = 20)**

1. Anticoagulants.
2. G protein.
3. Calcitriol.
4. Thyroid function tests.
5. Describe the Reflex Arcs involved in micturition.
6. Explain the renal contribution to pH control.
7. Tubulo glomerular feedback mechanism.
8. Functions of plasma proteins.
9. Haemophilia.
10. Counter current blood flow in the villi.

III. Short Answers on : **(10 x 2 = 20)**

1. Functions of Na-K pump.
2. Saltatory conduction.
3. Conn’s syndrome.
4. Laron dwarf.
5. Aquaporins.
6. Anion Gap.
7. Macula densa.
8. Opsonization.
9. Immunological memory.
10. Cholelithiasis.
11. Enterogastric reflex.
12. Peristaltic rush.
13. Progeria.
14. Pills.
15. Permissive action.

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[LB 502] **AUGUST 2012** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time : 180 Minutes **Maximum: 100 Marks**

Answer **ALL** questions

Draw Suitable diagrams wherever necessary

I. Elaborate on:	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. What are the normal blood sugar levels? Which hormones regulate the blood sugar level and how? Add a note on diabetes mellitus.	16	25 min.	15
2. Discuss stages of erythropoiesis and the factors affecting it. Add a note on sickle cell anemia.	16	25 min.	15

II. Write notes on:

1. Functions of platelets.	3	8 min.	5
2. Composition and functions of gastric Juice.	3	8 min.	5
3. Molecular basis of skeletal muscle contraction.	3	8 min.	5
4. Sertoli cells.	3	8 min.	5
5. Rh blood group.	3	8 min.	5
6. Movements of small intestine.	3	8 min.	5
7. Functions of placenta.	3	8 min.	5
8. Functions of mitochondria.	3	8 min.	5
9. Puberty.	3	8 min.	5
10. Functions of glucocorticoids.	3	8 min.	5

III. Short Answers on:

1. Inulin clearance.	1	5 min.	2
2. Oxytocin.	1	5 min.	2
3. Fever.	1	5 min.	2
4. Second messengers.	1	5 min.	2
5. Functions of bile salts.	1	5 min.	2
6. ESR.	1	5 min.	2
7. Hypocalcemic tetany.	1	5 min.	2
8. Placental hormones.	1	5 min.	2
9. Myasthenia gravis.	1	5 min.	2
10. Immunoglobulins.	1	5 min.	2

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[LC 502] **FEBRUARY 2013** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

Draw Suitable diagrams wherever necessary

I. Elaborate on: **(2 x 7.5 = 15)**

1. Define haemostasis.
   Describe in detail about Extrinsic and Intrinsic mechanism of clotting?
2. Give an account of composition and functions of pancreatic juice.
   How is the secretion regulated.

II. Write notes on : **(10 x 2.5 = 25)**

1. Erythroblastosis foetalis.
2. Isotonic and isometric contraction.
3. Facilitated diffusion.
4. Enterohepatic circulation.
5. Juxta Glomerular Exchanger.
6. Counter current Exchanger.
7. Transport Maximum.
8. Acromegaly.
9. Steps in Thyroxine synthesis.
10. Stages of spermatogenesis.

III. Short Answers on: **(10 x 1 = 10)**

1. Chronaxie.
2. Motor unit.
3. Apoptosis.
4. Osmotic dieresis.
5. LH surge.
6. Somatomedins.
7. Hormones of Adrenal cortex.
8. Types of diabetes.
9. Action of paratharmone on bone.
10. Menarche.

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[LD 502] **AUGUST 2013** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on: **(2 x 7.5 = 15)**

1. What are blood groups? Discuss their importance.
2. Describe the hormonal regulation of human menstrual cycle.

II. Write notes on: **(10 x 2.5 = 25)**

1. Tests for ovulation.
2. Contraceptives.
3. Thyroxine synthesis.
4. Tetany.
5. Juxta glomerular apparatus.
6. Dialysis.
7. Gastric emptying.
8. Enterohepatic circulation.
9. Functions of saliva.
10. Autoimmune diseases.

III. Short Answers on: **(10 x 1 = 10)**

1. Functions of sodium potassium ATPase pump.
2. Mention the normal value of GFR and substance used to measure GFR.
3. Enumerate heat loss mechanism.
4. Peristalsis.
5. What is the role of vitamin K in the body?
6. What is the normal blood calcium level?
7. Name the hormones of adrenal cortex.
8. Name the hormones of placenta.
9. Cryptorchidism.
10. Why are ovarian cycles suppressed during lactation?

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[LD 502] **NOVEMBER 2013** **Sub. Code: 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on: **(2 x 7.5 = 15)**

1. Describe digestion and absorption of fat in the digestive tract. Write a note on steatorrhoea.
2. What do you understand by the terms innate and acquired immunity? Describe the phenomenon of cell-mediated immunity.

II. Write notes on: **(10 x 2.5 = 25)**

1. G-protein coupled receptors.
2. Primary active transport.
3. Autoregulation of GFR.
4. Renal glycosuria.
5. Mechanism of bicarbonate generation in distal tubule.
6. Stimuli for secretion of aldosterone and actions of aldosterone.
7. Pancreatic C-peptide and its significance as a laboratory test.
8. Cretinism – its cause, features and strategy to prevent it.
9. What is the function of corpus luteum of pregnancy? How is it supported?
10. Parturition.

III. Short Answers on: **(10 x 1 = 10)**

1. Extracellular fluid volume and blood volume in an adult male weighing 70 Kg.
2. Calcium transporters on the membrane of sarcoplasmic reticulum.
3. Mechanism of edema in congestive cardiac failure.
4. State a manifestation of Hypocalcemic tetany. Give one cause leading to this condition.
5. List the Vitamin K-dependent coagulation factors.
6. Rh status of mother, father and child for occurrence of Rh incompatibility.
7. Role of tropomyosin in muscle contraction.
8. Type of acetyl choline receptor on skeletal muscle and its function.
9. Hormones secreted by hypothalamus.
10. Hormonal defect in (a) Addison’s disease (b) Conn’s syndrome.

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[LE 502] **FEBRUARY 2014** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time : 180 Minutes **Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on: **(2 x 7.5 = 15)**

1. Describe the physiological roles of the different types of granulocytes circulating in blood.

2. Define Glomerular Filtration Rate (GFR). What are its determinants?
   Discuss the phenomenon of autoregulation of GFR.
   Describe the best test for estimation of GFR.
   What is the routinely used clinical test to assess renal function?

II. Write notes on: **(10 x 2.5 = 25)**

1. cAMP signaling pathway, with an example.
2. Colloid oncotic pressure and its importance.
3. Excitation-contraction coupling in skeletal muscle.
4. Types of polycythemia and complications due to this condition.
5. Findings of 'tests of hemostasis' in hemophilia.
6. Functions of macrophages.
7. Physiological role of corticosteroids.
8. Function of any one hormone of posterior pituitary.
9. Composition of bile and the physiological role (if any) of the components.
10. Pathophysiology of peptic ulcer.

III. Short Answers on: **(10 x 1 = 10)**

1. Membrane transporters involved in clearance of calcium from cytoplasm.
2. Concentrations of sodium and potassium in intra and extracellular fluids.
3. Phenomena involved in the act of swallowing.
4. Role of ATP in relaxation of muscle.
5. Draw a schematic diagram of the sarcomere and label its components.
6. Opsonins.
7. Cells which express Major Histocompatibility complex II.
8. Significance of glycosylated hemoglobin.
9. Name 4 enzymes in pancreatic secretion.
10. Hormonal imbalance causing: (a) acromegaly (b) cretinism.

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[LF 502] **AUGUST 2014** **Sub. Code: 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Essay: **(1 x 10 = 10)**

1. What is the composition of gastric juice? Describe the mechanism of HCl secretion. Give a detailed account on the regulation of gastric secretion.

II. Write Notes on: **(2 x 5 = 10)**

1. Hypersecretion of growth hormone.
2. Tissue macrophage system.

III. Short Answers on: **(10 x 3 = 30)**

1. Permissive action of hormone.
2. Role of Vitamin D in Calcium Homeostasis.
3. Contraception in males.
4. Corpus luteum.
5. Vitamin-K dependent clotting Factors.
6. Atonic bladder.
7. Functions of skin.
8. Secondary active transport.
9. Motor unit.
10. Refractory period.

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[LF 502] **NOVEMBER 2014** **Sub. Code: 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Essay: **(1 x 10 = 10)**

1. Define anemia. Classify them. List the important investigations to confirm the various types of anemia.

II. Write Notes on: **(2 x 5 = 10)**

1. Transport across cell membrane.
2. Ovarian and endometrial changes of menstrual cycle.

III. Short Answers on: **(10 x 3 = 30)**

1. Functions of plasma proteins.
2. Non-excretory functions of kidney.
3. Myasthenis gravis.
4. Stages of spermatogenesis.
5. Cystometrogram and its significance.
6. Hormones regulating calcium homeostasis.
7. Enterohepatic circulation.
8. Enzymes involved in digestion of fat.
9. Structure of platelets.
10. Functions of saliva.

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[LG 502] **FEBRUARY 2015** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on: **(1 x 10 = 10)**

1. Describe the synthesis, storage, release, functions and regulation of secretion of thyroid hormone. Add a note on hypothyroidism.

II. Write Notes on: **(2 x 5 = 10)**

1. Give an account on micturition.
2. Classify the blood groups and indications and complications of blood transfusion.

III. Short Answers on: **(10 x 3 = 30)**

1. Fetoplacental unit.
2. Importance of dietary fibres.
3. Neuromuscular transmission.
4. ESR-clinical significance.
5. Movements of small intestine.
6. Diabetes Insipidus.
7. Red cell indices.
8. Extracellular edema.
9. Functions of Sertoli cells.
10. Tests for ovulation.

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[LH 502] **AUGUST 2015** **Sub. Code: 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on: **(1 x 10 = 10)**

1. Describe the mechanism of coagulation of blood.

II. Write Notes on: **(2 x 5 = 10)**

1. Cushings syndrome.
2. Succus entericus.

III. Short Answers on: **(10 x 3 = 30)**

1. Resting membrance potential.
2. Define all or none law. How is this law applicable in the skeletal and cardiac muscle.
3. Name the muscle proteins. What is the role of troponin c in muscle contraction.
4. Inulin clearance.
5. Countercurrent exchanger mechanism in kidney.
6. Somatomedin.
7. Action of thyroxine on CVS.
8. Positive feedback mechanism.
9. How does temperature influence spermatogenesis?
10. Effects of oestrogen on the uterine endometrium.

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[LI 502] **NOVEMBER 2015** **Sub. Code: 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code: 524053

Time: Three Hours **Maximum: 50 Marks**

Answer **ALL** questions

I. Elaborate on: **(1 x 10 = 10)**

1. Discuss in detail the gastric secretions with experimental evidences. Add a note on peptic ulcer.

II. Write notes on: **(2 x 5 = 10)**

1. Factors necessary for Erythropoiesis.
2. Explain the actions of Glucocorticoids.

III. Short Answers on: **(10 x 3 = 30)**

1. Dwarfism.
2. Functions of lymphocytes.
3. Proximal tubular events.
4. Acromegaly.
5. Hormones produced by placenta.
6. Stages of deglutition.
7. Renin Angiotensin system.
8. Oral contraceptives.
9. Chronaxie and Rheobase.
10. Significance of glycosylated haemoglobin.

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[LJ 502] **AUGUST 2016** **Sub. Code : 4053**

FIRST M.B.B.S. DEGREE EXAMINATION

PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS - I

Q. P. Code : 524053

Time : Three hours **Maximum: 50 Marks**

Answer **ALL** questions.

I. Essay : **(1 x 10 = 10)**

1. What is Glomerular Filtration Rate (GFR)? Enumerate the factors affecting GFR.

II. Write notes on: **(2 x 5 = 10)**

1. Facilitated diffusion.
2. Control of insulin secretion.

III. Short answers on: **(10 x 3 = 30)**

1. Hemophilia.
2. Differentiate between isotonic and isometric contraction.
3. Erythropoietin.
4. Compound action potential.
5. Gastrin.
6. Addisonian crisis.
7. Law of gut.
8. Intestinal phase of pancreatic secretion.
9. Inhibin.
10. Functions of prostate gland.

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[LJ 502] NOVEMBER 2016 **Sub.Code:4053**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I

Q.P. Code: 524053

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Discuss in detail the stages of erythropoiesis and the factors affecting it. Add a note on polycythemia.

II. Write notes on: **(2 x 5 = 10)**

1. Neuromuscular junction.
2. Regulation of hydrochloric acid secretion in the gastric parietal cells .

III. Short answers on: **(10 x 3 = 30)**

1. Functions of saliva.
2. Diuretics and their sites of action.
3. Steps in synthesis of thyroid hormones.
4. Enterohepatic circulation.
5. Phagocytosis.
6. Endoplasmic reticulum.
7. Anticoagulants.
8. Functions of estrogen.
9. Importance of Rh typing.
10. Fat absorption.

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