

[MBBS 0221]

FEBRUARY 2021

Sub.Code :6053

**M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER I – PHYSIOLOGY**

Q.P. Code: 526053

Time: Three hours

Maximum : 100 Marks (80 Theory + 20MCQS)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Describe the physiological roles of the different types of leucocytes circulating in blood. Add a note on functions of lymphocytes in viral infection.
2. Describe the digestion and absorption of proteins in the digestive tract. Write a note on malabsorption.

II. Write notes on:

(10 x 5 = 50)

1. Classify the fluid compartments of body giving their normal values, mention two methods to determine E.C.F. volume.
2. Transport across cell membrane.
3. Structure and functions of Neuromuscular junction.
4. Tissue macrophage system.
5. Non-excretory functions of kidney.
6. Cystometrogram and its significance.
7. Secretion of HCl in stomach and its regulation.
8. Regulations of blood calcium levels.
9. Spermatogenesis and seminal analysis.
10. Female contraceptive methods for birth control.

**M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER I – PHYSIOLOGY**

Q.P. Code: 526053

Time: Three hours

Maximum : 100 Marks (80 Theory + 20MCQS)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Describe the mechanism of secretion of Hydrochloric acid in the stomach. What are the factors regulating acid secretion? Add a note on peptic ulcer.
2. What is Erythropoiesis? Describe the stages and factors regulating Erythropoiesis. Add a note on Anaemias.

II. Write notes on:

(10 x 5 = 50)

1. Classify diuretics and write a note on their sites of action.
2. Draw a neat labeled diagram of neuro-muscular junction and explain the events in neuro-muscular transmission.
3. Movements of small intestine.
4. Actions of Parathormone.
5. Juxta Glomerular apparatus.
6. Fibrinolytic system.
7. Functions of Glucocorticoid.
8. Endometrial changes in menstrual cycle.
9. Active transport across cell membrane.
10. Digestion and absorption of fat.

M.B.B.S. DEGREE EXAMINATION
(For the candidates admitted from the Academic Year 2019-2020)
FIRST YEAR
PAPER I – PHYSIOLOGY

Q.P. Code: 526053

Time: Three hours

Maximum : 100 Marks (80 Theory + 20MCQs)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Describe the function and regulation of Insulin .Add a note on diabetes mellitus.
2. Explain the sliding filament hypothesis. Add a note on isometric and isotonic muscle contractions.

II. Short Notes :

(10 x 5 = 50)

1. Second messengers.
2. Types of lymphocytes and its functions.
3. Haemophilia.
4. Describe the phases of gastric juice secretion.
5. Functions of bile salts.
6. Renal Buffers.
7. Auto regulation of GFR.
8. Calcitriol.
9. Contraceptive methods for males.
10. Phases of Menstrual cycle.

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

[MBBS 0522]

MAY 2022

Sub. Code : 6053

**M.B.B.S. DEGREE EXAMINATION
(For the candidates admitted from the Academic Year 2019-2020)
FIRST YEAR – SUPPLEMENTARY (CBME)
PAPER I – PHYSIOLOGY**

Q.P. Code: 526053

Time: Three hours

Maximum : 100 Marks (80 Theory + 20MCQs)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Describe the digestion and absorption of fat in the digestive tract. Add a note on steatorrhea.
2. Mention the various phases of menstrual cycle. Correlate the ovarian changes with endometrial changes during the menstrual cycle.

II. Short Notes :

(10 x 5 = 50)

1. Inter cellular connections.
2. Types of polycythemia and complications due to this conditions.
3. Humoral immunity.
4. Transfusion reaction.
5. Molecular basis of action potential.
6. Plasticity of smooth muscle.
7. Peculiarities of renal blood flow.
8. Parathormone.
9. Patho-physiology of diabetes mellitus.
10. Barrier contraceptives.

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

[MBBS 0123]

JANUARY 2023

Sub. Code : 6053

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted from the Academic Year 2019-2020)

FIRST YEAR – (CBME)

PAPER I – PHYSIOLOGY

Q.P. Code: 526053

Time: Three hours

Maximum: 100 Marks (80 Theory + 20MCQs)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Define Immunity. Classify different types of Immunity. Explain in detail the cell mediated Immunity. Add note on Natural Killer cells.
2. Describe how the countercurrent mechanism in the kidney operates to produce hypertonic urine? Add a note on Diabetes Insipidus.

II. Write Short Notes on:

(10 x 5 = 50)

1. Sodium Potassium ATPase pump.
2. Hemolytic anemia.
3. Glucose reabsorption in Nephron.
4. Explain the structure of smooth muscle and its properties.
5. Body Fluid Compartments.
6. Phases of gastric juice secretion.
7. Dietary fibre.
8. Neuroendocrine reflex.
9. Role of Vitamin D in calcium homeostasis.
10. Mechanism of action and functions of testosterone.

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

[MBBS 0323]

MARCH 2023

Sub. Code : 6053

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted from the Academic Year 2019-2020)

FIRST YEAR – SUPPLEMENTARY (CBME)

PAPER I – PHYSIOLOGY

Q.P. Code: 526053

Time: Three hours

Maximum: 100 Marks (80 Theory + 20MCQs)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Mention various steps of Hemostasis. Explain in detail how bleeding is arrested through intrinsic system of coagulation. Add a note on Hemophilia.
2. Name the different hormones secreted by Islets of Langerhans. Explain in detail about the chief hypoglycemic hormone. Enumerate the consequences of Insulin deficiency.

II. Write Short Notes on:

(10 x 5 = 50)

1. Primary active transport.
2. Indications and complications of blood transfusion.
3. Describe the structure of Sarcomere and the contractile proteins.
4. Myasthenia Gravis.
5. Explain the mechanism of gastric secretion.
6. Enterohepatic circulation.
7. Cushing syndrome.
8. Mechanism of ovulation.
9. Autoregulation of glomerular filtration rate and renal blood flow.
10. Transport characteristics of the late distal tubule and cortical collecting tubule.

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

[MBBS 1123]

NOVEMBER 2023

Sub. Code : 6053

M.B.B.S. DEGREE EXAMINATION
(For the candidates admitted from the Academic Year 2019-2020)

FIRST YEAR – (CBME)
PAPER I – PHYSIOLOGY
Q.P. Code: 526053

Time: Three hours

Maximum: 100 Marks (80 Theory + 20MCQs)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. A 45 year old male patient complaints of epigastric pain for the past 3 days. History reveals taking on and off pain killers over the counter. What is your diagnosis? Illustrate the microscopic anatomy of Gastric glands. Explain in detail about the mechanism of Secretion of Hydrochloric Acid (HCl). Add a note on Acid Peptic Disease.
2. Describe the major ovarian processes that occur during the periovulatory period. Name three effects of estrogen on the reproductive tissue. List the indicators of ovulation. Discuss about precocious puberty.

II. Write Short notes on:

(10 x 5 = 50)

1. Feedback mechanisms maintaining homeostasis.
2. Classify various body fluid compartments. Explain fluid exchange and osmotic equilibrium between intracellular and extracellular fluid.
3. Megaloblastic anemia.
4. Erythroblastosis Fetalis.
5. Describe the structure of Sarcomere and the contractile proteins.
6. Defecation reflex.
7. Actions of the chief hypoglycemic hormone on the liver, skeletal muscle and adipose tissue.
8. Micturition reflex.
9. Write in brief about doctor – patient relationship.
10. Functions of Placenta.

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

[MBBS 0124]

JANUARY 2024

Sub. Code : 6053

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted from the Academic Year 2019-2020)

FIRST YEAR – SUPPLEMENTARY (CBME)

PAPER I – PHYSIOLOGY

Q.P. Code: 526053

Time: Three hours

Maximum: 100 Marks (80 Theory + 20MCQs)

Answer All Questions

I. Essay:

(2 x 15 = 30)

1. Explain the mechanism of clotting via intrinsic pathway. Differentiate between coagulation and bleeding disorders.
2. Describe the renal mechanism for excreting concentrated urine. Add a note on nephrogenic diabetes insipidus.

II. Short Notes:

(10 x 5 = 50)

1. Intercellular communications.
2. Primary active transport.
3. Gastrin.
4. Functions of liver.
5. Write about importance of Empathy and Attitude in patient care.
6. Actions of cortisol.
7. Compare the metabolic actions of insulin and glucagon.
8. Milk ejection reflex.
9. Human Chorionic Gonadotropin (HCG).
10. Movements of small intestine.
