

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum: 100 marks

Answer ALL Questions

I. Essay Questions:

(2 x 15 = 30)

1. Define erythropoiesis. List the difference stages of erythropoiesis.
Describe the changes, which take place in each stage and the factors necessary for erythropoiesis.
2. Define cardiac cycle.
Describe various events of the cardiac cycle with pressure and volume changes.

II. Write notes on:

(10 x 5 = 50)

1. Write short note on functions of white blood cells.
2. Write the process of acidification of urine.
3. Write notes on ECG leads.
4. Nervous regulation of respiration.
5. Respiratory changes during exercise.
6. Cell junction – different types.
7. Homeostasis in the body with example.
8. Note on blood grouping.
9. Note on cellular mediated immunity.
10. Renin – angiotensin system - Kidney.

III. Short Answers on:

(10 x 2 = 20)

1. What is dead space?
2. What is stroke volume?
3. What is stretch reflex?
4. What is surfactant?
5. What is the use of spirometer?
6. What is the main function of salivary amylase?
7. What is inspiratory reserve volume? Write the value.
8. What is the cause for pernicious anemia?
9. Write the types of white blood cells.
10. Define bulk flow.

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum: 100 marks

Answer ALL Questions

I. Essay Questions:

(2 x 15 = 30)

1. Define blood coagulation. Describe the mechanisms involved in coagulation and add a note on anticoagulants.
2. Define blood pressure. Describe the regulation and factors influencing blood pressure.

II. Write notes on:

(10 x 5 = 50)

1. Explain the homeostasis in the body with suitable examples.
2. ABO blood groups.
3. Functions of leukocytes.
4. Functions of saliva.
5. Mechanism of secretions of hydrochloric acid in stomach.
6. Concentration of urine.
7. What are the factors regulating cardiac output?
8. Define ECG and explain on various ECG leads.
9. Explain chemo regulation in respiration.
10. Spirometry.

III. Short Answers on:

(10 x 2 = 20)

1. Define active transport.
2. What is rouleaux formation?
3. Define erythropoiesis.
4. What is the role of erythropoietin?
5. Classification of WBC.
6. Name the major salivary glands.
7. What is cholagogue action of the bile salts?
8. What is uremia?
9. Name the layers of the heart.
10. What is ejection fraction?

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. Give a detail account on types of Anemia and its causes.
2. Explain the process of urine formation.

II. Write notes on:

(10 x 5 = 50)

1. Describe the secondary active transport.
2. Different stages of erythropoiesis.
3. Haemostasis.
4. Note on the movements of the large intestine.
5. Draw and explain the structure of nephron.
6. Oxygen haemoglobin dissociation curve.
7. Reabsorption of substances in renal tubule.
8. Significance of heart sounds.
9. Artificial respiration.
10. Haemodynamics.

III. Short Answers on:

(10 x 2 = 20)

1. Define cardiac murmur.
2. Define Arrhythmia.
3. What is stair case phenomenon?
4. What is dialysis?
5. Define ESR.
6. Define osmosis.
7. What is polycythemia?
8. What is blood Indices?
9. Name the bile-pigments.
10. What is the Role of ADH in kidney function?

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code: 821505

Time : Three hours

Maximum: 100 Marks

Answer **ALL** questions.

I. Essay Questions:

(2 x 15 = 30)

1. Describe in detail the gastrointestinal movements.
2. Describe the cardiovascular and respiratory changes during exercise.

II. Write Notes on:

(10 x 5 = 50)

1. Explain homeostasis.
2. Describe the mechanism involved in blood coagulation.
3. Give an account of succus entericus.
4. Explain Juxtaglomerular apparatus.
5. Explain the role of the hypothalamus in temperature regulation.
6. Describe the conductive system of the heart.
7. Explain re-absorption of water in renal tubule.
8. Describe the mechanism of passive transport of substances through cell membrane.
9. Explain the fate of RBCs.
10. Explain functions of saliva.

III. Short Answers on:

(10 x 2 = 20)

1. Define Pinocytosis.
2. What are Anticoagulants?
3. What is Sham feeding?
4. Explain Hypothermia.
5. Describe Marey's reflex.
6. Define Acclimatization.
7. What are Pheromones?
8. Describe Immunization.
9. What is the normal blood volume?
10. Explain Defecation.

[LK 1505]

MAY 2017

Sub.Code :1505

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. Give an account on the intrinsic mechanism of coagulation of blood and add note on bleeding disorders.
2. Explain the composition and functions of gastric juices and give an account of normal regulation of gastric secretion.

II. Write notes on:

(10 x 5 = 50)

1. Factors necessary for erythropoiesis.
2. Active transport.
3. Explain positive feedback mechanism with example.
4. Acidification of urine.
5. Properties of cardiac muscle.
6. Artificial respiration.
7. Regulation of heart rate.
8. Short note on mitochondrion.
9. Functions of RBC.
10. Cell mediated immunity.

III. Short Answers on:

(10 x 2 = 20)

1. Apoptosis.
2. Osmosis.
3. Plasmapheresis.
4. Erythropoietin.
5. Normal values of ESR.
6. Tidal volume.
7. Mass peristalsis.
8. Marey's reflex.
9. Surfactant.
10. Bohr's effect.

[LL 1505]

OCTOBER 2017

Sub. Code: 1505

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. Describe the process of urine formation.
2. Explain the transport of oxygen and carbon dioxide in blood.

II. Write notes on:

(10 x 5 = 50)

1. RH factor.
2. Passive transport.
3. Account on succus entericus.
4. Regulation of gastric secretion.
5. Transfusion reaction due to ABO incompatibility.
6. Renal autoregulation.
7. Comment on normal ECG waves.
8. Respiratory changes at high altitude.
9. Hemodynamics.
10. Chemical regulation of respiration.

III. Short Answers on:

(10 x 2 = 20)

1. Agglutination.
2. Oncotic pressure.
3. Rouleaux formation.
4. Aplastic anemia.
5. Define antibodies.
6. Segmentation contraction.
7. Landsteiner's law.
8. All or none law.
9. Dyspnea.
10. Hering-breuer reflex.

[LM 1505]

MAY 2018

Sub. Code: 1505

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. What is cardiac output? Enumerate the various methods to measure cardiac output and explain the measurement of cardiac output by applying the fick's principle.
2. Describe the morphological development and functions of leucocytes.

II. Write notes on:

(10 x 5 = 50)

1. Plasma proteins.
2. Factors affecting Renal filtration.
3. Mechanism of secretion of hydrochloric acid.
4. Concentration of urine.
5. Cardiac murmurs.
6. Neural regulation of respiration.
7. Capillary circulation.
8. Effects of exercise on respiration.
9. Homeostasis.
10. Active transport across cell membrane.

III. Short Answers on:

(10 x 2 = 20)

1. What is the life – span of R.B.C.?
2. Transcytosis.
3. Types of normal haemoglobin.
4. Cholecystokin.
5. Cystometogram.
6. Dead space.
7. Define-lung compliance.
8. Dialysis.
9. Name the proteolytic enzymes of the pancreas.
10. Cross matching.

[LN 1505]

OCTOBER 2018

Sub. Code: 1505

FIRST B.N.Y.S. DEGREE EXAMINATION

PART - II

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. Define Cardiac cycle. Explain in detail about the various events takes place during cardiac cycle with its pressure and volume changes.
2. Explain in detail about the exocrine functions of Pancreas, its Composition and regulation.

II. Write notes on:

(10 x 5 = 50)

1. Erythropoiesis and its stages.
2. Types and functions of Hemoglobin.
3. Mechanism of Respiration.
4. Cell organelles and its function.
5. Acidification of Urine.
6. Movements of stomach and small intestine.
7. Heart sounds and its clinical importance.
8. Transport of carbon dioxide in blood.
9. Enterohepatic Circulation.
10. Non respiratory functions of Lungs.

III. Short Answers on:

(10 x 2 = 20)

1. Gastric Emptying time.
2. Local Gastrointestinal hormones.
3. Functions of skin.
4. Abnormal Constituents of urine.
5. All or None Law.
6. Cardiac Arrhythmias.
7. Asphyxia.
8. Formed Elements.
9. Homeostasis.
10. Origin of Thrombocytes.

[LO 1505]

MAY 2019

Sub. Code: 1505

FIRST B.N.Y.S. DEGREE EXAMINATION

PART – II

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. Explain in detail about the mechanism, concentration and acidification of Urine.
2. Elaborate the movements of Gastrointestinal tract with its regulation.

II. Write notes on:

(10 x 5 = 50)

1. Transport of O₂ and diffusion of gases across pulmonary membrane.
2. Nervous and chemical regulation of respiration.
3. Properties of Cardiac Muscle.
4. Origin, morphology and functions of Thrombocytes.
5. Immunity and its classification.
6. Digestion and absorption of fats.
7. Regeneration and spread of cardiac impulse.
8. Non respiratory functions of lungs.
9. Composition, function and regulation of Bile.
10. Cardiovascular and respiratory changes during exercise.

III. Short Answers on:

(10 x 2 = 20)

1. Hyperbarrism.
2. Composition of saliva.
3. Types of Leukocytes.
4. Nephrons and its types.
5. Succus entericus.
6. Einthoven's Law.
7. Muscles help in respiration.
8. Composition of expired air.
9. Factors required for Erythropoiesis.
10. RH blood group system.

[LP 1505]

OCTOBER 2019

Sub. Code: 1505

FIRST B.N.Y.S. DEGREE EXAMINATION

PAPER III – HUMAN PHYSIOLOGY - I

Q.P. Code : 821505

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Essays Questions:

(2 x 15 = 30)

1. Define erythropoiesis. List the different stages of erythropoiesis. Describe the changes, which take place in each stage and the factors necessary for erythropoiesis.
2. Define blood pressure. Describe the regulation and factors influencing blood pressure.

II. Write notes on:

(10 x 5 = 50)

1. Explain homeostasis.
2. Describe the mechanism involved in blood coagulation.
3. Give an account of succus entericus.
4. Explain Juxtaglomerular apparatus.
5. Properties of cardiac muscle.
6. Artificial respiration.
7. Regulation of heart rate.
8. Short note on mitochondrion.
9. Functions of RBC.
10. Cell mediated immunity.

III. Short Answers on:

(10 x 2 = 20)

1. What is dead space?
2. What is stroke volume?
3. What is stretch reflex?
4. What is surfactant?
5. What is the use of spirometer?
6. What is the main function of salivary amylase?
7. What is inspiratory reserve volume? Write the value.
8. What is the cause for pernicious anemia?
9. Write the types of white blood cells.
10. Define bulk flow.

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

[BNYS 0321]

MARCH 2021

Sub. Code: 1505

(MAY 2020 & AUGUST 2020 SESSION)

B.N.Y.S. DEGREE EXAMINATION

FIRST YEAR (From the academic year 2013-14) – PART II

PAPER III – HUMAN PHYSIOLOGY I

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Give an account on the intrinsic mechanism of coagulation of blood and add note on bleeding disorders.
2. Explain the composition and functions of gastric juices and give an account of normal regulation of gastric secretion.

II. Write notes on:

(10 x 5 = 50)

1. Explain the role of the hypothalamus in temperature regulation.
2. Describe the conductive system of the heart.
3. Explain re-absorption of water in renal tubule.
4. Describe the mechanism of passive transport of substances through cell membrane.
5. Explain the fate of RBCs.
6. Explain functions of saliva.
7. Concentration of urine.
8. Define ECG and explain on various ECG leads.
9. Explain chemo regulation in respiration.
10. Spirometry.

III. Short Answers on:

(10 x 2 = 20)

1. Define Pinocytosis.
2. What are Anticoagulants?
3. What is Sham feeding?
4. Explain Hypothermia.
5. Describe Marey's reflex.
6. Define Acclimatization.
7. What are Pheromones?
8. Describe Immunization.
9. What is the normal blood volume?
10. Explain Defecation.

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

[BNYS 1021]

**OCTOBER 2021
(OCTOBER 2020 SESSION)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR – PART II
(For the candidates admitted from the academic year 2013-14)
PAPER III – HUMAN PHYSIOLOGY I
*Q.P. Code : 821505***

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions: (2 x 15 = 30)

1. Write in detail about the Compositions and functions of Pancreatic juice and explain in detail about the regulation of pancreatic secretion.
2. Define cardiac cycle and explain the mechanism of cardiac output.

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

1. Write short note on functions of white blood cells.
2. Write the process of acidification of urine.
3. Write notes on ECG leads.
4. Nervous regulation of respiration.
5. Respiratory changes during exercise.
6. Cell junction – different types.
7. Homeostasis in the body with example.
8. Note on blood grouping.
9. Note on cell mediated immunity.
10. Rennin – angiotensin system - Kidney.

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

1. Define active transport.
2. What is rouleaux formation?
3. Define erythropoiesis.
4. Pinocytosis.
5. Classification of WBC.
6. Name the major salivary glands.
7. What is cholagogue action of the bile salts?
8. What is uremia?
9. Name the layers of the heart.
10. What is ejection fraction?

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

[BNYS 0322]

**MARCH 2022
(FEBRUARY 2021 & MAY 2021 SESSIONS)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR – PART II
(For the candidates admitted from the academic year 2011-12)
PAPER III – HUMAN PHYSIOLOGY I
Q.P. Code : 821505**

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Write a detailed note on Morphological and etiological classification of Anaemia and add a note on signs and symptoms of Anaemia.
2. Explain the composition, function and regulation of secretion of pancreatic juice.

II. Write notes on:

(10 x 5 = 50)

1. Note on Intrinsic nerve supply of gastrointestinal tract.
2. Note on Intestinal Villi.
3. Note on concentration of urine.
4. Write the properties of cardiac muscle.
5. Note on functions of skin.
6. Write a note on heart sound.
7. Explain the normal ECG waves.
8. Write a note on structure of DNA.
9. Note on cell adaptation.
10. What are the factors which affect the rate of diffusion?

III. Short Answers on:

(10 x 2 = 20)

1. What is Ligand gated channel?
2. What is Pinocytosis?
3. What is Plasma pheresis?
4. Write the maturation factors of RBC.
5. What is Xerostomia?
6. Major action of Secretin.
7. What is Static compliance.
8. Define Vital capacity.
9. What is Haldane effect?
10. Define Dyspnoea.

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

[BNYS 0522]

MAY 2022

Sub. Code: 1505

(AUGUST 2021 & OCTOBER 2021 SESSIONS)

B.N.Y.S. DEGREE EXAMINATION

FIRST YEAR – PART II

(For the candidates admitted from the academic year 2011-12)

PAPER III – HUMAN PHYSIOLOGY I

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Define haemostasis. Describe the various stages involved in the coagulation process.
2. Define GFR. Explain briefly about mechanism of factors regulating GFR.

II. Write notes on:

(10 x 5 = 50)

1. Explain mechanism of secretion of hydrochloric acid in stomach.
2. Explain the stages of development of erythrocytes.
3. Note on negative feedback with example.
4. Note on facilitated diffusion.
5. Note on bicarbonate generation in distal tubule.
6. Composition of bile acid and the physiological role of it.
7. Write a note on significance of Rh group.
8. Write the functions of Platelets.
9. Write a short note on moments of Gastrointestinal tract.
10. Note on Carbon dioxide dissociation curve.

III. Short Answers on:

(10 x 2 = 20)

1. Decomposition sickness.
2. Define Intra pleural pressure.
3. Starling phenomenon.
4. Write a composition of blood.
5. What is Tm value.
6. Major actions of cholecystokinin.
7. What are the precautions to be taken before the transmission of blood.
8. Name the other groups in addition to ABO blood group.
9. What are interferons?
10. What is Diapedesis?

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

[BNYS 1022]

**OCTOBER 2022
(FEBRUARY 2022 & MAY 2022 SESSIONS)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR – PART II
(For the candidates admitted from the academic year 2011-12)
PAPER III – HUMAN PHYSIOLOGY I
Q.P. Code : 821505**

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions: (2 x 15 = 30)

1. Define Erythropoiesis, explain the site and stage in development of erythrocytes. Add a note on factors regulating erythropoiesis.
2. Define respiration, explain in detail about the mechanism and regulation of respiration.

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

1. Composition and function of Pancreatic juice.
2. Heart sounds and its clinical significance.
3. Immunity and its classifications.
4. Mechanism of HCL formation.
5. Composition of normal urine and abnormal constituents of urine.
6. Conducting system of heart.
7. Method of separation of plasma proteins.
8. Transport of Carbon dioxide in blood.
9. Fate of erythrocyte and formation of bile pigments.
10. Mechanism of defecation.

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

1. Rouleaux Formation.
2. Unconditioned Reflex.
3. Total Lung Capacity.
4. Cardiac reserve.
5. Artificial Kidney.
6. Podocytes and their function.
7. Protodiastole.
8. Graded potential.
9. Secondary active transport.
10. Peptic Ulcer.

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

[BNYS 0323]

MARCH 2023

Sub. Code: 1505

(AUGUST 2022 & OCTOBER 2022 EXAM SESSIONS)

B.N.Y.S. DEGREE EXAMINATION

FIRST YEAR – PART II

(For the candidates admitted from the academic year 2011-12)

PAPER III – HUMAN PHYSIOLOGY I

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Explain in detail about the structure and functions of skin.
2. Explain in detail about the composition, function and regulation of Gastric juice. Add a note on secretion of HCL.

II. Write notes on:

(10 x 5 = 50)

1. Digestion and absorption of Proteins.
2. Concentration and acidification of urine.
3. Lung volume and capacities.
4. Electrocardiography.
5. Factors that help in Coagulation and its importance.
6. Mechanisms of Cell membrane and transport.
7. Mechanism of Deglutition and vomiting.
8. Physiology of Micturition and its abnormalities.
9. Origin and function of Plasma Proteins.
10. Regulation and factors influencing blood Pressure.

III. Short Answers on:

(10 x 2 = 20)

1. Cardiac Vector.
2. Cellular Immunity.
3. Fate of Erythrocyte.
4. Jaundice and its classification.
5. Function of Leukocyte.
6. Heparin.
7. First Heart Sound.
8. Hemorrhage.
9. Lung Compliance.
10. Dead Space.

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

[BNYS 0923]

**SEPTEMBER 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR – PART II
(For the candidates admitted from the academic year 2011-12)
PAPER III – HUMAN PHYSIOLOGY I**

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Explain in detail about the release & function of gastro intestinal hormones.
2. Explain the process of urine formation.

II. Write notes on:

(10 x 5 = 50)

1. Write notes on ECG leads & ECG Leads.
2. Explain chemoregulation in respiration.
3. Explain the fate of RBC & Formation of Bile pigments.
4. Explain in detail about the Mechanism & Secretions of hydrochloric acid in stomach.
5. Write a short note on properties of cardiac muscle.
6. Explain about the Juxtaglomerular apparatus & its functions.
7. Define immunity, its classification & explain about the development of cell mediated immunity.
8. Write short note on mitochondria.
9. What are the functions of saliva?
10. Explain the mechanism of passive transport of substances through cell membrane.

III. Short Answers on:

(10 x 2 = 20)

1. What are the functions of RBC?
2. What is Ejection Fracture?
3. What are the major salivary glands?
4. What is uremia?
5. Define Surfactant.
6. Define Rouleaux formation.
7. What is respiratory reserve volume? Write its value.
8. What is meant by pheromones?
9. Define All or none law.
10. Explain Graded potential in neurons.

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

[BNYS 0124]

JANUARY 2024

Sub. Code: 1505

(JUNE 2023 / OCTOBER 2023 EXAM SESSIONS)

B.N.Y.S. DEGREE EXAMINATION

FIRST YEAR PART - II

(For the candidates admitted from the academic year 2011-12)

PAPER III – HUMAN PHYSIOLOGY I

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum : 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Explain the clinical significance of heart sounds and add a note on cardiac Arrhythmias.
2. Explain in detail about the gastrointestinal hormone release and its functions.

II. Write notes on:

(10 x 5 = 50)

1. Neural regulation of respiration.
2. Short note on Golgi apparatus.
3. Note on mechanism of action of vasomotor center in the regulation of blood pressure.
4. Concentration of urine.
5. Explain the hemostasis in the body.
6. Describe the functions of plasma protein.
7. Oxygen-hemoglobin dissociation curve.
8. Factors regulating heart rate.
9. Cardiac murmur.
10. Note on lung volumes.

III. Short Answers on:

(10 x 2 = 20)

1. Define antibodies.
2. What is diapedesis?
3. What is apoptosis?
4. What are microtubules?
5. What is the rate of blood flowing to kidneys?
6. What is ejection fraction?
7. State the factors increasing the venous return.
8. What is vasovagal syncope?
9. What is the function of apneustic centre?
10. What is the action of surfactant?

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

[BNYS 0824]

**AUGUST 2024
(MAY 2024 EXAM SESSION)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR - PART - II
(For the candidates admitted from the academic year 2011-12)
PAPER III – HUMAN PHYSIOLOGY I**

Q.P. Code: 821505

Time: Three Hours

Answer ALL questions

Maximum: 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Give an account on the intrinsic mechanism of coagulation of blood and add note on bleeding disorders.
2. Elaborate the movements of Gastrointestinal tract with its regulation.

II. Write notes on:

(10 x 5 = 50)

1. Explain about ABO system and its determination with diagram.
2. Write a short note on renin angiotensin mechanism.
3. Write a short note on concentration of urine.
4. Explain the conductive system of heart.
5. Explain about the functions and secretions of gastric juice.
6. Short note on plasma proteins.
7. Explain the mechanism of deglutition and vomiting.
8. Short note on spirometry.
9. Explain the positive feedback mechanism with example.
10. What are the different heart sounds and explain about triple and quadruple heart sounds.

III. Short Answers on:

(10 x 2 = 20)

1. Define dead space and its types.
2. Define bulk flow with example.
3. What is the role of Erythropoietin?
4. Define Marey's reflex.
5. Define Transcytosis.
6. Define lung compliance.
7. Define decomposition sickness.
8. Define artificial kidney and its function.
9. Explain cardiac reserve and its values.
10. Define Einthoven's law.

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

[BNYS 0125]

**JANUARY 2025
(OCTOBER 2024 EXAM SESSION)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR - PART - II
(For the candidates admitted from the academic year 2011-12)
PAPER III – HUMAN PHYSIOLOGY I**

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum: 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. What is Cardio metabolism and add a note on regeneration and spread of cardiac impulse.
2. Explain in detail about Pulmonary circulation and add a note on carbon di oxide uptake.

II. Write notes on:

(10 x 5 = 50)

1. Heart sounds and its clinical importance.
2. Immunity and its classification.
3. Passive transport.
4. Acidification of urine.
5. Explain the homeostasis in the body with suitable examples.
6. Describe the functions of platelets.
7. Name the different phases of pancreatic secretion and their regulation.
8. Factors necessary for erythropoiesis.
9. Artificial respiration.
10. Account on succus entericus.

III. Short Answers on:

(10 x 2 = 20)

1. What is chemotaxis?
2. What is Bohr effect?
3. What are non-threshold substances? Give a few examples.
4. Einthoven's Law.
5. What is antigen?
6. What is Bowman's space?
7. Cross matching.
8. What is stroke volume?
9. What is Haldane effect?
10. What is cholagogue action of the bile salts?

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[BNYS 0725]

**JULY 2025
(MAY 2025 EXAM SESSION)**

Sub. Code: 1505

**B.N.Y.S. DEGREE EXAMINATION
FIRST YEAR PART - II
(For the candidates admitted from the academic year 2011-12)
PAPER III – HUMAN PHYSIOLOGY I**

Q.P. Code : 821505

Time: Three Hours

Answer ALL questions

Maximum: 100 Marks

I. Essays Questions:

(2 x 15 = 30)

1. Define immunity. How will you classify immunity? Explain in detail cell mediated immunity.
2. What are the different types of salivary glands? Describe the composition, functions and regulation of secretion of saliva.

II. Write notes on:

(10 x 5 = 50)

1. Tubuloglomerular feedback mechanism.
2. Explain the stages of development of Erythrocytes.
3. Classify the fluid compartments of body giving their normal values.
4. Micturition reflex.
5. Secondary active transport.
6. Functions of plasma proteins.
7. Artificial respiration.
8. What are blood groups and their importance.
9. Functions of Juxtaglomerular apparatus.
10. Draw and explain ECG graph.

III. Short Answers on:

(10 x 2 = 20)

1. Heparin.
2. Purpura.
3. Plasma cells.
4. GAP junctions.
5. Double Bohr effect.
6. Starling's law of heart.
7. Bainbridge reflex.
8. Dyspnea.
9. Blood transfusion reaction.
10. Pernicious anemia.
