

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

(LN 2014)

SEPTEMBER 2018

Sub. Code: 2014

B.PHARM. DEGREE EXAMINATION
PCI REGULATION – SEMESTER II
FIRST YEAR
PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Write about the structure and functions of brain.
2. Explain the anatomy of respiratory system with neat labelled diagram. Add a note on mechanism of respiration.
3. a) Explain about anatomy of female reproductive system.
b) Give a brief note on menstrual cycle.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Physiology of urine formation.
2. Endocrine function of pancreas.
3. Reflex action.
4. Anatomy and functions of liver.
5. Role of RAS in kidney.
6. Resuscitation methods.
7. Write about neurotransmitter with examples.
8. Hormones secreted by anterior pituitary gland.
9. Spermatogenesis.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define mountain sickness.
2. Acromegaly.
3. Define BMR.
4. Neuroglia.
5. Define saliva and its functions.
6. Functions of hypothalamus.
7. Tidal volume.
8. Micturition reflex.
9. Hepatitis.
10. Define oogenesis.

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

(LO 2014)

MARCH 2019

Sub. Code: 2014

B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER II
PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Explain the structure of Kidney with a neat diagram and discuss the functions of kidney.
2. a) Draw the structure of adrenal glands.
b) Discuss the hormones secreted by adrenal glands and their functions.
3. a) Explain ovulation.
b) Outline the various events of menstrual cycle.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Give the composition of cerebrospinal fluid.
2. Composition and functions of pancreatic juice.
3. Discuss the physiology and functions of thyroid glands.
4. Explain the mechanism of respiration.
5. Give the composition and role of saliva in digestion.
6. Spermatogenesis.
7. Describe the associated structures and functions of cerebellum.
8. Explain the role of pepsin in protein digestion.
9. Anatomy of GI tract and discuss the function of stomach.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Reflex arc.
2. Parturition.
3. Write on chromosomes.
4. Composition of bile.
5. Fertilization.
6. What is genetic pattern of inheritance?
7. Resting membrane potential.
8. Functions of liver.
9. Neurotransmitters.
10. BMR.

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

(LP 2014)

SEPTEMBER 2019

Sub. Code: 2014

B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER II
PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Name the four surface lobes of the Cerebral hemisphere and describe the functions of the Cortex in each lobe.
2. Explain about the anatomy and physiology of Digestive system.
3. With illustrated diagram explain about the structure and function of a Nephron.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain about the mechanism of hormone action.
2. Discuss about the internal structure of the female reproductive system with diagram.
3. Describe about Oogenesis.
4. Write a brief note on pregnancy and parturition.
5. Genetic pattern of inheritance.
6. Write a note on neurotransmitter receptors with examples.
7. Discuss about the process of acid regulation in digestive system.
8. Discuss about the formation and role of ATP.
9. Name the various functions of the respiratory system.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Functions of cerebellum.
2. Parts of Stomach.
3. Gall bladder.
4. Inflammatory Bowel Disease.
5. Naso pharynx.
6. Carbondioxide transport in blood.
7. Urinary Bladder.
8. Diabetic nephrophathy.
9. Vasopressin.
10. Diabetes mellitus.

(LQ 2014)

MARCH 2020

Sub. Code: 2014

B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER II
PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. a) With a neat diagram and explain the anatomy of the respiratory system and give the functions of respiratory organs.
b) Add a note on regulation of respiration.
2. a) Draw a diagram and describe the Pancreas.
b) Explain their role in digestion and absorption of nutrients.
3. Explain the structure and functions of male and female reproductive system.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Define gene and explain the functions of the gene.
2. Discuss the various stages of the menstrual cycle.
3. Organization of nervous system.
4. Structure and functions of pituitary gland.
5. Role of RAS in kidney.
6. Different types of salivary glands, composition of saliva.
7. Protein synthesis.
8. Describe the structure and functions of liver.
9. Draw a neat diagram of a neuron and discuss briefly on action potential.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. What is resuscitation?
2. Diabetes mellitus.
3. Spermatogenesis.
4. Give the composition of bile.
5. Define vital capacity.
6. BMR.
7. Creatine phosphate.
8. Role of different hormones in parturition.
9. Artificial respiration.
10. Components of DNA.

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

[BPHARM 0321]

MARCH 2021

Sub. Code: 2014

(SEPTEMBER 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI Regulation SEMESTER – II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code : 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. a) Describe anatomy and physiological functions of Thyroid gland.
b) Explain the consequence of hypothyroidism and hyperthyroidism.
2. Discuss in detail the anatomy and functions of Male reproductive system.
3. Write in detail about physiology of Urine formation. Adds a note on micturition.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Write about Oogenesis.
2. Enlist the function of the Liver.
3. Give the composition and function of Cerebrospinal fluid.
4. Add a note on artificial respiration.
5. Describe organization of the Nervous system.
6. Reflex action.
7. Define and classify hormones.
8. Discuss Fertilization.
9. Role of Renin Angiotensin system in kidney.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Give the composition of bile.
2. Function of neuroglia.
3. Define vital capacity.
4. What is Spermatogenesis.
5. What is GFR. Give its normal values.
6. Hormones of parturition.
7. Draw a neat diagram of neuron and label it.
8. List out the properties of nerve fiber.
9. What is the importance of meninges.
10. Functions of Cerebrum and Cerebellum.

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

[BPHARM 0122]

**JANUARY 2022
(MARCH 2021 EXAM SESSION)**

Sub. Code: 2014

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code : 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Discuss the anatomy of Respiratory organs with neat labeled diagram and explain the mechanism of Respiration.
2. Give the physiological functions of Female Sex hormones. Discuss the various stages of Menstrual Cycle.
3. Draw a neat diagram and describe the organs of Digestive system. Explain their role in digestion of food.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Mention the physiological significance of BMR.
2. Write short notes on Genes.
3. List out the function of Kidney and Urinary tract.
4. Discuss Cranial nerves and its function.
5. Role of Kidneys in acid base balance.
6. Describe ventricles of the Brain.
7. Diagrammatically explain the events involved in an action potential.
8. Draw and describe the structure of Nephron.
9. Write short notes on Male Sex Hormones.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What is cholecystitis?
2. Function of Uterus.
3. Define Synapse.
4. What is transcription and translation?
5. Define Chromosomes.
6. Define Residual and Tidal volume.
7. What are the functions of Gall bladder?
8. Define Saliva and its functions.
9. Cerebrospinal fluid.
10. Define ingestion and defecation.

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

[BPHARM 0522]

MAY 2022

Sub. Code: 2014

(SEPTEMBER 2021 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI Regulation SEMESTER - II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code : 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Describe the anatomical parts of the Brain. Add a note on its functions.
2. Classify the hormones of Pituitary gland. Give the physiological functions and disorders of growth hormones.
3. With a neat labeled diagram explain the anatomy of Kidney and Nephron and its functions.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Discuss the process of digestion in the Small Intestine.
2. Write a note on meninges of Brain.
3. Formation and role of ATP.
4. Add a note on receptor and its type.
5. Describe Adrenal cortex disorder.
6. Define Pregnancy and add stages of pregnancy.
7. Write about neurotransmitters with examples.
8. Describe the role of pepsin in protein digestion.
9. Short note on Neuroglia.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Define Hypoxia.
2. Write the role of pancreas in digestion of food.
3. What are the constituents of Saliva?
4. Write the function of Hypothalamus.
5. Explain the role of bile salts.
6. What is respiration?
7. Define ganglia.
8. Write the function of placenta.
9. Define Genetic code.
10. What are Androgens and Estrogens?

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

[BPHARM 1022]

**OCTOBER 2022
(MARCH 2022 EXAM SESSION)**

Sub. Code: 2014

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code : 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. a) Explain about structure and functions of kidney.
b) Give a brief note on urine formation.
2. Draw the neat diagram of brain and explain the anatomy and physiology of cerebrum and Cerebellum.
3. a) Draw the neat diagram of endocrine system and explain the anatomy and physiology of pituitary gland.
b) Elaborate the hyper and hypo secretion of anterior pituitary gland.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Short notes on respiratory system.
2. Structure and functions of stomach.
3. Describe the protein synthesis.
4. Write a brief note on pregnancy and parturition.
5. Discuss about the formation and role of ATP.
6. Genetic pattern of inheritance.
7. Name the various disorders associated with respiratory system.
8. Give note on anatomy and functions of liver.
9. Composition and functions of pancreatic juice.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Micturition reflex.
2. Functions of hypothalamus.
3. Short answer on gene.
4. Give short notes on Oogenesis.
5. Give disorders of kidney.
6. Note on action potential.
7. Hashimoto's disease.
8. Neuroglia.
9. Give male and female sex hormones.
10. Give a composition of saliva.

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

[B.PHARM 0323]

**MARCH 2023
(SEPTEMBER 2022 EXAM SESSION)**

Sub. Code: 2014

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Draw the neat diagram of kidney and explain the anatomy and physiology of nephron.
2. a) Explain about anatomy of female reproductive system.
b) Give a brief note on menstrual cycle.
3. a) Draw the neat diagram of respiratory system and explain the anatomy and physiology of respiratory organs.
b) Explain the mechanism of respiration.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain the anatomy of digestive system with neat labeled diagram.
2. Brief note on Oogenesis.
3. Describe the endocrine and exocrine pancreas.
4. Short notes on role of RAS in kidney.
5. Draw neat diagram of brain and its function.
6. Enumerate the composition of saliva and its function.
7. Explain the mechanism of acid formation in stomach.
8. Draw the neat diagram of neuron and its parts.
9. Write a note on anatomy and functions thyroid gland.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define Tidal volume.
2. Give composition of bile.
3. Short answer on DNA.
4. Spermatogenesis.
5. Give disorders of GIT.
6. Note on action potential.
7. Goiter.
8. Role of parathyroid hormones.
9. Define hormone and its functions.
10. Give a note on BMR.

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

[B.PHARM 0823]

**AUGUST 2023
(MARCH 2023 EXAM SESSION)**

Sub. Code: 2014

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Draw a neat diagram and discuss the anatomy of respiratory tract; add a note on mechanism of respiration.
2. Enumerate the structure, secretions, functions and disorders of adrenal gland.
3. Explain the anatomy and physiology of female reproductive system with neat diagram.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain about physiology of urine formation.
2. Discuss the structure, functions and disorders of liver with neat labeled diagram.
3. Write the structure and functions of human brain with diagram.
4. How the acid production takes place in the stomach? Add a note on regulation of acid production.
5. Summarize the secretions, functions and disorders of pituitary gland.
6. Describe the phases in protein synthesis.
7. Outline the organization of nervous system and mention the properties of nerve fibre.
8. Discuss about neurotransmitters with examples.
9. Write the formation and role of ATP.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define synapse; add a note on its types.
2. List the parts and functions of brain stem.
3. Mention the types of salivary gland and write any two important functions of saliva.
4. Outline the exocrine and endocrine functions of pancreas.
5. List out the parts in respiratory tract.
6. What is role of kidney in blood pressure regulatory mechanism?
7. Name the secretion and functions of pineal gland.
8. List the name of hormones produced by male, female gonads and its functions.
9. Define chromosomes; add a note on the types of chromosomes.
10. Write a note on nucleic acid.

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

[B.PHARM 1223]

**DECEMBER 2023
(SEPTEMBER 2023 EXAM SESSION)**

Sub. Code: 2014

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Discuss the structure and functions of kidney. Add a note on nephron with neat diagram.
2. Summarize the list of endocrine glands and its secretions; explain the anatomy and physiology of pituitary gland.
3. Describe the anatomy of digestive tract and discuss their role in digestion of food with neat labeled diagram.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain the electrophysiology and action potential of nervous tissue.
2. Outline the types of salivary gland; add a note on composition of saliva and its functions.
3. Write about resuscitation methods.
4. Explain the mechanism of hormone action.
5. Discuss about protein synthesis.
6. Describe the structure, secretions, functions and disorders of adrenal gland.
7. Discuss about lung volume and lung capacities.
8. Write a note on anatomy of human brain with diagram.
9. Explain the phases in spermatogenesis and oogenesis.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define and classify the types of neurotransmitters with example.
2. Mention the composition and functions of CSF.
3. Define defecation and micturition.
4. Write a note on the role of hydrochloric acid in digestive system.
5. Define GFR. Mention the normal value and its significance.
6. List the hormones produced by male and female gonads.
7. Name the nucleic acids and its composition.
8. What is menopause?
9. Name the secretions and functions of parathyroid gland.
10. Mention the parts of respiratory tract.

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

[B.PHARM 0524]

MAY 2024

Sub. Code: 2014

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Draw a neat labeled diagram of stomach. Describe in detail the mechanical and chemical digestion.
2. Describe the structure of lungs with a neat labeled diagram and explain the mechanism of respiration.
3. Give a detailed anatomy of human brain.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Discuss the physiology of nephron with a labeled diagram.
2. Explain the regulation and functions of hormone secreted by adrenal glands.
3. Write a note on distribution and functions of cranial nerves.
4. Describe the structure and functions of testes.
5. Write a note on neuron fiber with properly labeled figure.
6. Write detailed note on reflex activity.
7. Explain oogenesis.
8. Discuss the role of renin-angiotensin-aldosterone system on blood pressure.
9. Describe the structure and functions of liver.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Addison's disease.
2. Functions of medulla oblongata.
3. Hypoxia and asphyxia.
4. Corpus luteum.
5. Peptic ulcer disease.
6. Tidal volume.
7. Composition and functions of saliva.
8. Renal clearance.
9. List hormones of posterior pituitary gland.
10. Neuroglia.

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

[B.PHARM 1024]

**OCTOBER 2024
(SEPTEMBER 2024 EXAM SESSION)**

Sub. Code: 2014

B. PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Classify autonomic nervous system. Describe the physiological role of each division of autonomic nervous system.
2. Explain the menstrual cycle and add a note on human chorionic gonadotrophins.
3. Mention the hormones of pituitary gland and write their function.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Describe the functions of thalamus and hypothalamus.
2. Explain the anatomy and functions of pancreas with associated disorders.
3. Discuss process of nerve action potential generation. Explain 'Gating Mechanism' of sodium channels.
4. Describe the gross structure of kidney.
5. Explain how digestion takes place in small intestine?
6. Write a note on blood brain barrier.
7. Explain the regulation of respiration in detail.
8. Describe the process of spermatogenesis.
9. Write a note on intra-uterine contraceptive devices.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Diabetes mellitus.
2. Glomerular filtration rate (GFR).
3. Myxoedema.
4. Vital capacity.
5. Gene.
6. Meningitis.
7. Oogenesis.
8. Basal Metabolic Rate (BMR).
9. Pheochromocytoma.
10. Composition and functions of bile.

B. PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER II

PAPER I – HUMAN ANATOMY AND PHYSIOLOGY – II

Q.P. Code: 562014

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. With a neat labeled diagram, describe the structure of nephron. Explain the physiology of urine formation.
2. Describe the structure and functions of spinal cord.
3. Classify and explain the mechanism of action of hormones. Mention the hormones of adrenal gland and write their functions.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Explain the physiology of acid production in stomach and its regulation.
2. Write a note on artificial respiration and resuscitation methods.
3. Describe the steps of protein synthesis in a cell.
4. Write a detailed note on reflex activity.
5. Explain the regulation and functions of hormone secreted by anterior pituitary gland.
6. What are inherited diseases? Explain the pattern of inheritance.
7. Explain different family planning methods.
8. Describe the mechanism of ATP formation.
9. Define the term Basal Metabolic Rate (BMR) and how it is determined? Describe various factors affecting BMR.

IV. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Pancreatic enzymes.
2. Functions of prostate gland.
3. Oxygen therapy.
4. Cushing syndrome.
5. Draw a neat labelled diagram of neuron.
6. Synapse.
7. Micturition.
8. Diabetes insipidus.
9. Cerebellum.
10. Asthma.
