Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 19-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

HUMAN ANATOMY (RS5)

Q.P. CODE: 2731

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Describe the knee joint in detail under the following headings:
   a) Articular surfaces
   b) Ligaments
   c) Movements
   d) Applied Anatomy
2. Describe the boundaries and contents of carotid triangle.

   OR

   Describe in detail liver.

SHORT ESSAYS (Question No 3 & 12 choice) **10 x 5 = 50 Marks**

3. Blood supply of thyroid gland

   OR

   Medulla oblongata
4. Great saphenous vein
5. Right atrium
6. Lymphatic drainage of mammary gland
7. Spleen
8. Gluteus maximus
9. Cubital fossa
10. Superficial palmar arch
11. Spermatogenesis
12. Histology of hyaline cartilage

    OR

    Corpus callossum

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Pterion
14. Foramen magnum
15. Tongue
16. Gall bladder
17. Tendo calcaneus
18. Carpal Tunnel syndrome
19. Draw and label a cardiac muscle
20. Muscles of mastication
21. Porta Hepatis
22. Any four supports of uterus

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 21-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

HUMAN PHYSIOLOGY (RS5)

Q.P. CODE: 2732

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Define erythropoiesis. Explain the stages of erythropoiesis. Add a note on factors affecting the erythropiesis.

Or

Define cardiac cycle discuss the events taking place in different phases of cardiac cycle

2. **Define a sarcomere. Explain the role of sarcomere in skeletal muscle contraction**

OR

Define pain. Mention the types of pain. Trace the pain pathway. Add a note on referred pain.

SHORT ESSAYS (Question No 3 & 12 choice) **10 x 5 = 50 Marks**

3. **Mention the contents of middle ear and explain the functions of middle ear.**

OR

Briefly discuss the functions of skin

4. Enumerate the functions of Plasma Proteins.
5. Explain the Conducting system of heart.
6. Draw a labeled spirogram. Mention the normal values of any lung volumes.
7. Define GFR. What is its normal value? Explain the forces acting the glomerulo Capillary membrane.
8. Movements of small intestine
9. Functions of bile
10. Cushing's syndrome
11. Explain the endometrial changes seen in menstrual cycle.
12. Explain the reflex arc with the help of a diagram.

OR

Difference between upper motor and lower motor neuron lesion

SHORT ANSWERS **10 x 3 = 30 Marks**

13. What is surfactant?
14. Functions of mitochondria
15. Define hypoxia. Name the types of hypoxia.
16. **Define Muscle Tone**
17. Define Jaundice. Name the three types of jaundice.
18. List 4 functions of stomach.
19. List the functions of saliva.
20. Enumerate difference between active and passive transport.
21. List the contraceptive methods used in females.
22. Define cyanosis and mention the types of cyanosis.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 23-May-2025

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY (RS-5)
Q.P. CODE: 2733

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe in detail the Tricarboxylic acid cycle and energy production. Add a note on its amphibolic role.
2. What is the normal blood pH? Explain the role of kidneys in maintaining acid base balance.

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

3. Digestion and absorption of lipids.
4. Muscle contraction.
5. Glycolysis.
6. Types of RNA and functions.
7. Describe the synthesis of ketone bodies and add a note on ketosis.
8. Factors affecting enzyme activity.
9. Renal function tests.
10. Deficiency features of Vitamin C
11. Atherosclerosis.
12. Describe the functional classification of proteins.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Von-gierks disease.
14. Nucleotides.
15. Pellagra.
16. Nitrogen balance.
17. Perinicious anemia.
18. Rickets.
19. SDA.
20. Normal level of sodium, potassium and chloride.
21. Transamination.
22. Normal level of Calcium and Iron.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 26-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

BIO-MECHANICS (RS - 5)
Q.P. CODE: 2734

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Second Question choice) **2 x 10 = 20 Marks**

1. Describe the structure of Hip Joint. Add a note on Kinetics and Kinematics of hip joint.
2. Describe in detail about mechanism of muscle contraction and explain the different types of muscle contraction with examples.

   Or

   Explain biomechanics of Thorax and Chest wall.

SHORT ESSAYS (Question No.3 & 12 choice) **10 x 5 = 50 Marks**

3. Scapulo humeral rhythm.

   Or

   List out various gait deviations. Discuss any two in detail.
4. Postural changes in pregnancy.
5. Determinants of Gait.
6. Lumbo pelvic rhythm.
7. Different types of Grip.
8. Mention in brief about concurrent force system.
9. Enumerate the deviations occurring at ankle joint.
10. Describe in detail the classification of joints.
11. Length tension relationship of a muscle.
12. Explain levers in detail.

    Or

    Describe stress and strain curve.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Scoliosis.
14. Stair climbing – briefly explain the muscle work.
15. Anteversion and retroversion.
16. Patella Plica.
17. Pes planus and Pes-cavus.
18. Define axis and planes.
19. Name the ligaments of Hip Joint.
20. Define moment arm of Force.
21. Palmar arches.
22. Open kinematic chain.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 28-May-2025

Time: 3 Hours **Max. Marks: 40 Marks**

PSYCHOLOGY (RS5)
Q.P. Code: 2735

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define Intelligence. How do you Assess Intelligence explain with examples?
2. Define Motivation. Explain Primary and Secondary Motives.

SHORT ESSAYS (Answer any Three) **3 x 5 = 15 Marks**

3. Define Personality. Freud's Psychoanalytic theory.
4. Define Emotions. Enumerate the changes that take place in Emotions.
5. Describe Projective techniques.
6. Define Learning. Effective methods of learning.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Hallucinations.
8. List the branches of Psychology.
9. Adolescent Stage.
10. Motivational Cycle.
11. Rationalization.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 28-May-2025

Time: 3 Hours **Max. Marks: 40 Marks**

SOCIOLOGY (RS5)
Q.P. CODE: 2736

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define socialization. Explain the stages and agencies of socialization.
2. Explain any one social problem in relation to its causes, effect and solution.

SHORT ESSAYS (Answer any Three) **3 x 5 = 15 Marks**

3. Social survey method.
4. Medical social work.
5. Joint family.
6. Drug addiction.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Ethnocentrism.
8. Primary group.
9. Health programmes in India.
10. Concept of health.
11. Child abuse.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 10-Nov-2025

Time: Three Hours **Max. Marks: 100 Marks**

HUMAN ANATOMY (RS5)

Q.P. CODE: 2731

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Describe the Femoral triangle under the following headings:
   a)Boundaries b)Contents c)Applied anatomy
2. Describe the anatomy of the interior of the right ventricle in detail.
   OR
   Describe the sulci and Gyri of Brain with a note on functional areas.

SHORT ESSAYS (Question No 3 & 12 choice) **10 x 5 = 50 Marks**

3. Parotid gland
   OR
   Knee joint
4. TMJ
5. Relations of Anterior surface of Kidneys.
6. Microscopy of Elastic artery.
7. Superior Mediastinum.
8. Hamstring muscles.
9. Nerve supply of Scalp.
10. Interior of Urinary Bladder.
11. Epiphysis.
12. Rectus Sheath.
    OR
    Trapezius muscle.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Mention the carpal bones.
14. Draw a neat labelled diagram of floor of the 4^{th} ventricle.
15. Enlist the contents of spermatic cord.
16. Mention the origin, insertion, nerve supply and action of Deltoid.
17. Posterior triangle.
18. Sternum.
19. Relation of the visceral surface of Spleen.
20. Enumerate branches of the Facial artery.
21. Sartorius.
22. Mention the branches of Abdominal aorta.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 12-Nov-2025

Time: Three Hours **Max. Marks: 100 Marks**

HUMAN PHYSIOLOGY (RS - 5)

Q.P. CODE: 2732

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question choice) **2 x 10 = 20 Marks**

1. Trace the pathway of pyramidal tracts. Mention its functions.
2. **Define a triad. Explain sliding filament theory. Add a note on starlings law of force of contraction.**

   Or

   Discuss the role of short term and long term regulatory mechanism of blood pressure

SHORT ESSAYS (Question No.3 & 12 choice) **10 x 5 = 50 Marks**

3. Explain how gastric juice secretion is regulated.

   Or

   Explain neural regulation of respiration.
4. Explain properties of nerve fibers.
5. Discuss the nerve supply of the urinary bladder and explain micturition reflex.
6. **Explain the physiological role of thyroid hormone**
7. Explain about uterine changes during menstrual cycle.
8. Trace the visual pathway. Add a note on lesions in the visual pathway.
9. Describe synaptic transmission.
10. Discuss functions of hypothalamus.
11. Explain functions of plasma proteins.
12. Differentiate between REM and NREM sleep.

    Or

    Explain properties of receptors.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Myasthenia gravis.
14. Dysbarism.
15. **Conducting system of the heart**
16. Parkinsonism.
17. Surfactant.
18. Enumerate the actions of saliva.
19. Juxta glomerular apparatus.
20. List the features of diabetes mellitus.
21. Trace the ventral spino-thalamic tract and give its function.
22. Define active and passive transport with example.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 14-Nov-2025

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY (RS-5)
Q.P. CODE: 2733

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Write in detail about Beta oxidation of Fatty acid.
2. Describe in detail the chemistry, sources, daily requirement, biochemical functions and deficiency manifestations of vitamin A.

SHORT ESSAYS (Answer any Eight) **8 x 5 = 40 Marks**

3. Classification of lipids.
4. Protein energy malnutrition.
5. Diabetes mellitus.
6. Urea cycle.
7. Diagnostic importance of enzymes.
8. Basal metabolic rate.
9. Biologically important peptides.
10. Regulations of plasma calcium levels.
11. Important compounds synthesized from cholesterol.
12. Functions and deficiency features of vitamin C

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Structure of tRNA.
14. Creatinine clearance.
15. Beri Beri.
16. Essential amino acids.
17. Transamination.
18. Structure of plasma membrane.
19. Normal level of cholesterol and calcium.
20. Handerson -Hasselbalch equation.
21. Fatty liver.
22. Km value and its significance.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – 17-Nov-2025

Time: Three Hours **Max. Marks: 100 Marks**

BIO-MECHANICS (RS5)

Q.P. CODE: 2734

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Describe the structure of shoulder joint and add a note on static stabilizers of shoulder joint in detail.
2. Discuss the kinematics of Rib cage in detail.

   OR

   Classify Joints in detail with examples.

SHORT ESSAYS (Question No 3 & 12 choice) **10 x 5 = 50 Marks**

3. Explain Newton's law of motion.

   OR

   Describe the structure of connective tissue in brief.
4. Discuss the length tension relationship of muscle.
5. Enumerate various Grips of Hand in detail.
6. Explain concurrent force systems in detail.
7. Describe Structure of subtalar joint.
8. Discuss about frontal plane analysis of posture.
9. Describe Trendelenberg gait and its significance.
10. Explain the procedure of Goniometry for measuring knee Range of Motion (ROM).
11. Explain the phases of gait in detail with neat diagrams.
12. Explain the structure of Tempero Mandibular Joint in detail.

    OR

    Static stability of Hip joint.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. What is good and Bad posture?
14. Define force and work.
15. Write any two differences between closed and open Kinematic chain.
16. What is angle of Inclination of Pelvis?
17. What is house maid's knee?
18. **Name the Muscles of Mastication.**
19. Name the Arthro Kinematic movements of a joint.
20. **What is Syndesmosis and synarthrosis?**
21. Define cadence and Degree of toe out.
22. Define kinetic Energy and Potential Energy.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 19-Nov-2025

Time: 3 Hours **Max. Marks: 40 Marks**

PSYCHOLOGY (RS5)

Q.P. Code: 2735

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define motivation. Explain the biological and socio-psychological motivation.
2. Define learning. Explain the effective ways of learning.

SHORT ESSAYS (Answer any Three) **3 x 5 = 15 Marks**

3. Types of attention
4. Schools of psychology
5. Distribution of intelligence
6. Types of leadership

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Inductive reasoning
8. Conflict
9. Aptitude
10. Super ego
11. Rationalization

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 19-Nov-2025

Time: 3 Hours **Max. Marks: 40 Marks**

SOCIOLOGY (RS5)
Q.P. CODE: 2736

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Explain the factors of social changes and its impact on health and rehabilitation.
2. Discuss the role of family in health and disease.

SHORT ESSAYS (Answer any Three) **3 x 5 = 15 Marks**

3. Health hazards of village community.
4. Social factors affecting our health.
5. Functions of culture.
6. Family and psycho-somatic disorders.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Joint family system.
8. Concept of HEALTH.
9. Sociology and Anthropology.
10. Types of child abuse.
11. Any three rural development programme.

*****