Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – 28.05.2024

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 shoulder joint in detail.
2. Describe the inguinal canal under the following headings : a) boundaries b) contents c) mechanism d) inguinal hernia
   OR
   Describe the origin, course, branches and applied aspects of the radial nerve in detail.

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

3. Flexor retinaculum of hand.
   OR
   Gross anatomy of spleen.
4. Microscopic structure of hyaline cartilage.
5. Boundaries and contents of cubital fossa.
6. Floor of 4^{th} ventricle.
7. Spermatogenesis.
8. Arterial supply of the heart.
9. Iliotibial tract.
10. Temporomandibular joint : articulation and ligaments.
11. Sternocleidomastoid muscle.
12. Upper end of tibia.
    OR
    Bronchopulmonary segments of lung.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Types of epiphysis.
14. Parts of corpus callosum.
15. Layers of pericardium.
16. Pneumatic bones.
17. Parts of small intestine.
18. Parts of hip bone.
19. Name any three branches of abdominal aorta.
20. Microscopic structure of cardia muscle.
21. Name the parts of fallopian tube.,
22. Tendo achileles.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 30-May-2024

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. Explain excitation – contraction coupling in skeletal muscle. Add a note on sarcomere.
2. Define cardiac cycle. Explain different phases of cardiac cycle
   Or
   Describe the oxygen dissociation curve. Add a note on its shift to right and left.

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

3. Explain briefly about oxygen transport.
   Or
   Discuss briefly abut synaptic transmission.
4. Write about composition formation, circulation and functions of CSF.
5. Explain functions of middle ear.
6. Discuss actions of growth hormone.
7. Describe the functions of leukocytes.
8. Define spermatogenesis and explain. Add a note on factors affecting it.
9. Give brief account on triple response.
10. Trace gracile and cuneate tract and explain its functions.
11. Explain properties of cardiac muscle.
12. Describe defecation reflex.
    Or
    How heart rate is regulated.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Briefly outline juxta glomerular apparatus.
14. Define bell Magendie law.
15. What is Haemophilia?
16. Differentiate between diabetes mellitus and diabetes insipidus.
17. Name any three enzymes present in pancreatic juice and list their actions.
18. List any three contraceptive methods used in females with their action.
19. What is hamburger phenomenon?
20. Strength duration curve.
21. Name the junctional tissues of the heart with the help of diagram.
22. List the functions of kidney.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 03-Jun-2024

Time: Three Hours | Max. Marks: 80

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. Mention the source, daily requirement, functions and deficiency symptoms of calcium
2. Discuss in detail of liver function test

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

3. How are carbohydrates classified and write examples for each and briefly about Mucopolysaccharides
4. Role of kidney in acid base balance
5. Enzyme inhibition
6. BMR
7. Structural classification of protein
8. Urea cycle
9. Difference between DNA and RNA
10. Muscle contraction
11. Hormonal regulation of glucose in the body and briefly explain glucose tolerance test
12. Glycolysis and energetics

SHORT ANSWERS 10 x 3 = 30 Marks

13. Glycosuria
14. Lactose intolerance
15. Mitochondria
16. Active transport
17. Functions of cholesterol
18. Essential and non-essential amino acid with examples
19. tRNA
20. Cofactors
21. Diabetic mellitus
22. Fatty liver

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 05-Jun-2024

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 articulations of hip joint and explain the motions of pelvis on femur.
2. Define posture. Explain posture analysis in frontal plane.
   Or
   Name the joints of shoulder complex. Explain the biomechanics of gleno-humeral joint

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

3. Write a note on scapula humeral joint.
   Or
   List the types of joint and describe synovial joint.
4. Classify and explain equilibrium with example.
5. Describe bucket-handle and pump handle movement.
6. Describe the Static stability of hip joint.
7. Explain the Bio mechanics of elbow complex.
8. Explain the different types of axis and planes.
9. Explain Lumbo-pelvic rhythm.
10. Describe the classification of joints.
11. Describe the characteristics of type I and type II muscle fibers.
12. Describe the precision pinches.
    Or
    Explain torque and moment arm with an example.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Define step length.
14. Define concave-convex rule.
15. What is patella Baja.
16. Functions of Meniscus.
17. Good and bad posture.
18. Name the ligaments of shoulder joint.
19. Types of Equilibrium.
20. Define Cadence.
21. Define Q Angle.
22. Types of Motion.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 07-Jun-2024

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 Psychology. Explain any two methods of Psychology
2. Define motivation. Describe Maslow's theory of Hierarchical needs

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

3. Explain the types of attention
4. Explain the errors in Perception
5. Explain the types of conflicts
6. Explain the concept of I Q

SHORT ANSWERS — 5 x 3 = 15 Marks

7. Stages of growth and development
8. Delusions
9. Telepathy
10. Insightful learning
11. Regression

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 07-Jun-2024

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 effects causes and remedies of population explosion
2. Explain the types and functions of family.

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

3. Role of social factors on health and illness
4. Characteristics of group
5. Define rural community and its health hazards.
6. Characteristics of social change

SHORT ANSWERS — 5 x 3 = 15 Marks

7. Stages of socialization
8. Causes for poverty
9. Stat the methods used in sociology
10. MSW
11. Social security

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – 20-Nov-2024

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.
2. Describe the brachial plexus under the following headings : a) roots b) trunks c) divisions d) cords e) branches f) applied anatomy

   OR

   Explain the blood supply of the heart in detail.

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

3. Biceps brachii muscle.

   OR

   Mandible bone.
4. Microscopic structure of skeletal muscle.
5. Boundaries and contents of femoral triangle.
6. Spermatogenesis.
7. Intercostal muscles.
8. Rectus sheath.
9. Draw a neat labelled diagram of medulla at pyramidal decussation.
10. First carpometacarpal joint.
11. Pituitary gland.
12. Medical longitudinal arch of foot.

    OR

    Pleura of lungs.

SHORT ANSWERS — 10 x 3 = 30 Marks

13. Hamstring muscles.
14. External carotid artery branches.
15. Name the carpal bones.
16. Deep nuclei of cerebellum.
17. Name the paranasal sinuses.
18. Elastic cartilage.
19. Types of synovial joint.
20. Types of neuron.
21. Name the suprahyoid muscles.
22. Contents of spermatic cord.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 22-Nov-2024

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. Draw a labeled diagram of neuromuscular junction and explain the sliding filament theory of muscle contraction.
2. Describe the conducting system of human heart with labelled diagram. Add a note on ionic basis of each phase of ventricular action potential.

   OR

   Name and locate the respiratory centres in the brain. Explain the neural regulation of respiration.

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

3. Explain accommodation reflex.

   OR

   Mention the component of middle ear. Add a note on impedance matching.
4. Describe the metabolic functions of growth hormone.
5. Write the types and functions of neuroglial cells.
6. Describe the circulation and functions of cerebrospinal fluid.
7. Define deglutition. Explain the second phase of deglutition.
8. Draw and label normal lead – II ECG. Write the physiological basis of each wave.
9. Define and classify hypoxia. Explain anyone.
10. Explain the tubule-glomerular feedback mechanism of regulation of GFR (Glomerular Filtration Rate).
11. Describe the mechanism of regulation of temperature by hypothalamus.
12. Write the cause and physiological basis for the symptoms of Cushing's syndrome.

    OR

    Describe spermatogenesis. Add a note on cause of male infertility.

SHORT ANSWERS — 10 x 3 = 30 Marks

13. Write a note on active transport.
14. Draw and label nephron.
15. List the complications of mismatched blood transfusion.
16. Write the functions of juxtaglomerular apparatus.
17. Write the functions of Bile.
18. Write a note on ESR (Erythrocyte Sedimentation Rate) with normal value.
19. Write the physiological basis of contraception of IUD's (Intra Uterine Derive).
20. What is Presbyopia? How is it corrected?
21. Define reflex action. Mention the components of reflex arc.
22. Write a note on Haemophilia.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 25-Nov-2024

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. Explain the sources, daily requirement, functions and deficiency features of Vitamin C.
2. Mention various transport systems across the cell membrane.

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

3. Urea cycle
4. Mechanism of muscle contraction
5. What is Gluconeogenesis? Explain the key steps with key enzymes in conversion of alanine to glucose.
6. Explain the structure and function of tRNA.
7. Functions of Pyridoxine with deficiency manifestations.
8. Explain any five factors affecting enzyme activity.
9. Define Basal Metabolic Rate. Mention the factors affecting BMR.
10. Liver function tests.
11. Describe the types, features and management of Diabetes Mellitus.
12. Mucopolysaccharides.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Functions of Lysosomes.
14. Beri Beri
15. Active site of enzymes.
16. Lactose intolerance.
17. Functions of collagen.
18. Any three functions of Phosphorus.
19. Any three functions of phospholipids.
20. Essential fatty acids.
21. Atherosclerosis
22. Features of Rickets.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 27-Nov-2024

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. Explain the structure of knee joint in detail and add a note on screw home mechanism of knee joint.
2. Define posture and factors affecting posture. Explain sagittal plane analysis of posture.
   Or
   Define lever. Explain the various types of levers with examples.

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

3. Write in detail about Scapulo Humeral Rhythm.
   Or
   Movement analysis of Lifting.
4. Describe plantar arches and its significance.
5. Kinematics of elbow joint.
6. Explain the role of patella in knee joint.
7. Write a note on radioulnar joint.
8. Discuss supination and pronation twist.
9. Define active insufficiency. Explain in detail with example.
10. What is motor unit? Explain the types of muscle fibers.
11. Explain the biomechanics of thorax – rib cage.
12. Explain the biomechanics of mandibular motions.
    Or
    Describe equilibrium and classify with appropriate examples.

SHORT ANSWERS 10 x 3 = 30 Marks

13. What is Windlass mechanism?
14. What is Trendelenburg gait?
15. Angle of Torsion.
16. Index of install and Salvati.
17. Degree of toe out.
18. Stress strain curve.
19. What is Genu Recurvatum?
20. Nutation and counter Nutation.
21. Moment Arm of Force.
22. What is closed packed position?

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 25-Nov-2024

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. Explain the sources, daily requirement, functions and deficiency features of Vitamin C.
2. Mention various transport systems across the cell membrane.

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

3. Urea cycle
4. Mechanism of muscle contraction
5. What is Gluconeogenesis? Explain the key steps with key enzymes in conversion of alanine to glucose.
6. Explain the structure and function of tRNA.
7. Functions of Pyridoxine with deficiency manifestations.
8. Explain any five factors affecting enzyme activity.
9. Define Basal Metabolic Rate. Mention the factors affecting BMR.
10. Liver function tests.
11. Describe the types, features and management of Diabetes Mellitus.
12. Mucopolysaccharides.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Functions of Lysosomes.
14. Beri Beri
15. Active site of enzymes.
16. Lactose intolerance.
17. Functions of collagen.
18. Any three functions of Phosphorus.
19. Any three functions of phospholipids.
20. Essential fatty acids.
21. Atherosclerosis
22. Features of Rickets.

I Year B.P.T. Degree Examination – 25-Nov-2024
BIOCHEMISTRY (RS-5)
Q.P. CODE: 2733

CORRECTIONS

21. Atherosclerosis

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 27-Nov-2024

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. Explain the structure of knee joint in detail and add a note on screw home mechanism of knee joint.
2. Define posture and factors affecting posture. Explain sagittal plane analysis of posture.
   Or
   Define lever. Explain the various types of levers with examples.

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

3. Write in detail about Scapulo Humeral Rhythm.
   Or
   Movement analysis of Lifting.
4. Describe plantar arches and its significance.
5. Kinematics of elbow joint.
6. Explain the role of patella in knee joint.
7. Write a note on radioulnar joint.
8. Discuss supination and pronation twist.
9. Define active insufficiency. Explain in detail with example.
10. What is motor unit? Explain the types of muscle fibers.
11. Explain the biomechanics of thorax – rib cage.
12. Explain the biomechanics of mandibular motions.
    Or
    Describe equilibrium and classify with appropriate examples.

SHORT ANSWERS 10 x 3 = 30 Marks

13. What is Windlass mechanism?
14. What is Trendelenburg gait?
15. Angle of Torsion.
16. Index of install and Salvati.
17. Degree of toe out.
18. Stress strain curve.
19. What is Genu Recurvatum?
20. Nutation and counter Nutation.
21. Moment Arm of Force.
22. What is closed packed position?

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 29-Nov-2024

Time: 3 Hours | Max. Marks: 40

PSYCHOLOGY (RS-5)

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 Perception. Explain the principles of perception with example
2. Define Personality. Explain the concepts given by Sigmund Freud

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

3. Explain the role of environment on behaviour
4. Trial and error method of learning
5. Experimental method
6. Branches of psychology

SHORT ANSWERS 5 x 3 = 15 Marks

7. Behaviour
8. Concept of I.Q
9. Defense Mechanism
10. Leadership styles
11. Stress management

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 29-Nov-2024

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. Discuss any one social problem in relation to its cause, effect and solution.
2. Explain the relation between culture and health.

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

3. Scope of sociology.
4. Meaning and features of Urban Community.
5. Problems of modern family.
6. Features of culture.

SHORT ANSWERS 5 x 3 = 15 Marks

7. Deviance.
8. Slums.
9. Anticipatory socialization.
10. Child labour.
11. Patriarchal family.