Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 03-Jan-2022

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 origin, course, braches and distribution of Radial nerve. Add a note on its applied anatomy.
2. Describe the external features, blood supply and lymphatic drainage of stomach.
   Or
   Describe the articular surface, relations, ligaments, movements of Hip joint.

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

3. Sternomastoid muscle (Origin, insertion, nerve supply and action).
   Or
   Trapezius muscle.
4. Boundaries and contents of popliteal fossa.
5. Oogenesis.
6. Pancreas.
7. Fourth ventricle.
8. Azygos vein.
9. Femoral sheath.
10. Rectus sheath.
11. Histology of Cardiac muscle.
12. Extrinsic muscle of Tongue.
    Or
    Biceps Brachi

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

13. Name the carpal bones.
14. Coronary artery.
15. Histology of Transitional epithelium.
16. Foramen magnum.
17. Name the four nuclei of cerebellum.
18. Neurulation.
19. Name any four muscles of larynx.
20. Foot drop.
21. Iliotibial tract.
22. Facial artery.

I Year B.P.T. Degree Examination – 03-Jan-2022

HUMAN ANATOMY (RS5)

Q.P. CODE: 2731

CORRECTIONS

Read Question No.12 as follows:

12. Extrinsic muscle of Tongue.
    Or
    Biceps Brachi

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 05-Jan-2022

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 and label Sarcomere. Explain the sliding filament theory of skeletal muscle contraction.
2. Draw and labeled diagram showing the conducting system of human heart with the help of diagram of action potential of sino-atrial node. Explain the ionic basis for its different phases.

   OR

   With the help of diagram, discuss the corticospinal pathway under the headings: a) Origin b) Course c) Termination. Add a note on hemiplegia.

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

3. List the properties of nerve fibre and classify as proposed by Erlanger and Gasser.

   OR

   Explain the intrinsic mechanism of blood coagulation.
4. Explain the baroreflex mechanism of blood pressure regulation.
5. Draw a normal spirogram. Define and give normal values of the various lung volumes and capacities.
6. Describe in brief the defecation reflex.
7. Briefly explain the renal handling of glucose.
8. Describe the major actions of cortisol.
9. Briefly explain micturition reflex.
10. Mention four properties of sensory receptors. Explain any two.
11. Describe the special characteristics of coronary circulation.
12. Define dark adaptation. Explain the mechanism of dark adaptation.

    OR

    Explain the major actions of calcitonin on bone and kidney.

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

13. List the factors determining the rate of diffusion across cell membrane.
14. Define the term ‘’renal clearance’’. List the factors determining renal clearance.
15. List the functions of Plasma proteins.
16. Draw a neat labelled diagram of a Cystometrogram.
17. Write a note on enterohepatic recirculation.
18. List the functions of T lymphocytes and B lymphocyte.
19. Define and give one example each for a) Neurocrine b) Paracrine and c) Autocrine
20. List the functions of Sertoli cells.
21. List differences between rods and cones.
22. Define the term ‘’referred pain’’. Give an example with its physiological basis.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 05 Jan 2022

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

HUMAN PHYSIOLOGY (RS5)
Q.P. CODE: 2732
Corrections

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

Read Question No. 9 as follows :

9. Briefly explain micturition reflex.

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I Year B.P.T. Degree Examination – 07-Jan-2022

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

BIOCHEMISTRY (RS5)
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 Urea cycle. Add a note on inborn errors associated with this cycle.
2. Define Gluconeogenesis. Explain how lactate is converted to Glucose in the body.

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

3. Name the plasma lipoproteins. Describe their functions.
4. Basal Metabolic Rate (BMR).
5. Biochemical functions of calcium.
6. Diagnostic importance of enzymes.
7. Important compounds synthesized from Glycine with reactions.
8. Structure and function of collagen.
9. Define creatinine clearance. What is the normal value and significance of creatinine clearance.
10. Function and deficiency features of vitamin C.
11. Types of RNA and functions.
12. Liver function tests.

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

13. Transamination.
14. Metabolic acidosis.
15. Nitrogen balance.
16. Beri beri.
17. Functions of Iron.
18. Structure of tRNA.
19. Name the coenzymes riboflavin and thiamine.
20. Name the compounds synthesized from tyrosine.
21. Name two Glycogen storage disorders.
22. Essential Amino acids.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – 10-Jan-2022

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. Define lever and explain in detail about types/orders of levers with examples and neat diagram.
2. Discuss in detail about forces acting around hip joint in unilateral stance.

   OR

   Describe the structure of lumbar vertebrae in detail and add a note on Lumbo - pelvic rhythm.

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

3. Explain stress – strain curve in detail.

   OR

   Define End feel and discuss about various types of End feel.
4. Describe mechanics of rib cage.
5. Explain factors affecting muscle tension.
6. Describe kinematics of wrist joint.
7. Define goniometry, its principles, types and uses.
8. Define friction and its types.
9. Describe briefly determinants of gait.
10. Explain active and passive insufficiency with example.
11. Describe plantar arches and its significance.
12. Describe structure of Knee joint in detail.

    OR

    Explain briefly sequence of events occurring in muscle contraction.

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

13. What is Ante version and retro version?
14. Define carrying angle.
15. What is close packed position and loose packed position?
16. Define motor unit.
17. What are the muscles of expiration.
18. Write briefly palmar arches.
19. Name the ligaments supporting shoulder joint
20. Name the anatomical pulleys in human body
21. What is Trendelenberg gait?
22. Define kinematics and Kinetics.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 12-Jan-2022

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 learning. Explain the types of learning
2. Define attention. Explain the factors influencing attention

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

3. Stages of creative thinking
4. Types of conflicts
5. Experimental method in psychology
6. Sources of frustration

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

7. Define sensation
8. Repression
9. Authoritarian leader
10. Achievement motives
11. Concept formation

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I Year B.P.T. Degree Examination – 12-Jan-2022

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 social factors affecting health.
2. Discuss any one social problem in relation to is cause, effect and solution.

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

3. Social survey method.
4. Health hazards of urban community.
5. Features of culture.
6. Importance of primary group.

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

7. Geriatric problems.
8. Filocentric family.
9. Deviance.
10. Child abuse.
11. Medical social work.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – 05-Jul-2022

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 in detail the hip joint with neat labeled diagram.
2. Enumerate the spinal nerves. Discuss the nerve root, trunk, cord and branches of brachial plexus.
   OR
   Describe the origin, insertion, action and supply of deltoid muscle. Name the structure under cover of it.

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

3. Short essay on knee joint
   OR
   Bed of stomach
4. Bronchopulmonary segment
5. Spermatogenesis and oogenesis
6. Define joint. Write features of synovial joint.
7. Liver
8. Salivary glands
9. Sternum
10. Cerebellum
11. Axilla and its contents
12. Hamstring muscles
    OR
    Sciatic nerve

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

13. Name the carpal bones
14. Structure passing through foramen magnum
15. Acetabulum
16. Ovum
17. Parts of male urethra
18. Coronary artery
19. Gall bladder
20. Meninges
21. Skeletal muscle
22. Muscles of tongue

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 07-Jul-2022

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
2. Define cardiac cycle. Explain the different phases of cardiac cycle with their duration.

   Or

   Describe in detail the origin, course and functions of pyramidal tracts

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

3. Define Hypoxia. Explain different types hypoxia with example.

   Or

   Describe defecation reflex with neat labeled diagram.
4. Discuss physiological role of Insulin. Add a note on diabetes Mellitus.
5. Describe the body mechanisms by which it tolerates cold environment.
6. With labeled diagram explain the micturition reflex.
7. Define Anemia. Briefly discus the clinical classification of Anemia.
8. Enumerate functions of Basal ganglia.
9. Define cardiac output. Name the factor influencing the cardiac output.
10. Functions of Testosterone.
11. Name the Refractive Errors of eye and its correction.
12. Explain the ionic basis of Action potential of nerve.

    Or

    Discuss chemical regulation of respiration.

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

13. Define the term renal clearance giving its formula.
14. Define and mention the types of dead space.
15. Enumerate difference between active and passive transport.
16. Draw a Cystometrogram.
17. Name the Primary taste sensations.
18. What are anti-coagulants? List any two anticoagulants.
19. Name the anterior pituitary hormones.
20. Define Jaundice. Name the three types of Jaundice.
21. Define and mention the types of Haemophilia.
22. Write a note on entero-hepatic circulation.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 11-Jul-2022

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. What is normal pH of the blood? Describe different mechanisms in the maintenance of acid base balance.
2. Describe in detail glycogen metabolism.

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

3. Classify carbohydrate with suitable example.
4. Write a note on BMR.
5. Respiratory acidosis.
6. Atherosclerosis.
7. Biochemical function and absorption of Iron.
8. Diabetes mellitus.
9. Classify fatty acids with example.
10. Enzymes of diagnostic importance.
11. Glycolysis.
12. Phospholipids.

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

13. Define SDA (specific dynamic action).
14. Glycosuria.
15. Transamination.
16. Nucleotides of biological importance.
17. Essential fatty acids.
18. Enzymes involved in muscle contraction.
19. Derived lipids.
20. Name the vitamin deficient in a) Beri-Beri b) Pellagra
21. Polysaccharides.
22. Von Gierk’s disease.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 13-Jul-2022

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. Explain the structure of knee joint in detail and add a note on screw home mechanism of knee joint.
2. Define ventilation and explain the kinetics and kinematics of ribcage in detail.

OR

Define gait and explain in detail about sagittal plane analysis of gait.

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

3. Define force and enumerate the force components.

OR

Describe scapula humeral rhythm.

4. Discuss the structure of connective tissue.
5. Describe the mechanical behavior of ligament and bone.
6. Describe the structure of Atypical vertebra.
7. Explain briefly dynamic stability of shoulder joint.
8. Briefly explain different types of muscle contraction with neat diagram.
9. Define axis and plane with respect to hip joint movements.
10. Explain the strategies controlling posture.
11. Discuss movement analysis of lifting.
12. Explain the structure of subtalar joint.

OR

Describe active and passive insufficiency.

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

13. Name the pulleys of hand.
14. What is angle of inclination of femur?
15. Define law of equilibrium.
16. Define static and dynamic posture.
17. Name the muscles responsible for extension of knee joint.
18. Define torque.
19. Name the deviations of posture occurring in frontal plane.
20. Name the ligaments of shoulder joint.
21. Describe in short stress strain curve.
22. What are the different types of goniometer?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 15-Jul-2022

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. What is Psychology? Explain the pure branches of psychology.
2. What is Personality? Explain the tests of personality.

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

3. What is Introspection?
4. List the determinants of attention and explain briefly
5. What are the sources of Frustration?
6. Explain the Distribution of intelligence

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

7. **Hallucination**
8. Mnemonics
9. Attitude change
10. Creative thinking
11. Authoritarian leader

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I Year B.P.T. Degree Examination - 15-Jul-2022

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 merits and demerits of family system in India.
2. Explain the role of formal and informal groups in the hospital and rehabilitation.

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

3. Explain the factors of social change
4. Explain the agencies of socialization
5. Health hazards of tribal community
6. Explain the problem of unemployment

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

7. Monogamy and polygamy
8. Alocentric family
9. Juvenile delinquency
10. Opinion poll method
11. Social change and stress

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