Rajiv Gandhi University of Health Sciences, Karnataka

I

I Year B.P.T Degree Examination – APRIL-2019

Time: Three Hours | Max. Marks: 100 Marks

ANATOMY (RS-3 & RS-4)

Q.P. CODE: 2701

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

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Describe the supero lateral surface of cerebrum.
2. Describe the boundaries and contents of femoral triangle.
3. Describe origin, course, relations and branches of median nerve.

SHORT ESSAYS (Answer any Twelve) — 12 x 5 = 60 Marks

4. Deltoid muscle
5. Cubital fossa
6. Sub-talar joint
7. Carotid triangle
8. Thoracic duct
9. Pleura – parts and blood supply
10. Conduction system of heart
11. Classification of bone according to shape
12. Muscle attachment of radius
13. Gastrocnemics muscle
14. Great saphenous vein
15. Osteology of tibia
16. Pectoralis major
17. Sterna angle

SHORT ANSWERS — 10 x 2 = 20 Marks

18. Hyaline cartilage
19. Name the thenar muscle
20. Name the layers of scalp
21. Sutural joint
22. Name the layers of testis
23. Name four ligaments attached to liver
24. Name the lymphoid organs
25. Name the germ layers
26. Name the parts of a typical vertebra
27. Carpal tunnel syndrome

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Rajiv Gandhi University of Health Sciences, Karnataka

Year B.P.T. Degree Examination – APRIL-2019

Time: Three Hours Max. Marks: 100 Marks

HUMAN PHYSIOLOGY (RS-3 & RS-4)

Q.P. CODE: 2702

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define upper motor neuron and lower motor neuron. Differentiate between UMNL and LMNL.
2. With the help of a graph explain the mechanics of ventilation.
3. What is a sarcomere? Explain the role of a sarcomere in skeletal muscle contraction.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Define Anemia. Briefly discuss the clinical classification of anemia.
5. Explain Bohr's effect and Haldane effect.
6. List four methods of contraception in the males and females.
7. Explain the mechanism of Wallerian degeneration.
8. Trace the olfactory pathway.
9. Enumerate the anterior pituitary hormones. Explain the functions of growth hormone.
10. Tabulate the differences between the I and II heart sounds.
11. Describe the features of motor homunculus.
12. Describe the respiratory changes taking place during exercise.
13. With a labeled diagram explain micturition reflex.
14. Enumerate the secondary sexual characteristic in a male.
15. What is crossed extensor reflex? Explain its mechanism.
16. Describe the body mechanisms by which it tolerates cold environment.
17. Describe the events in second phase of deglutition.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Differentiate between simple and facilitated diffusion.
19. Draw a Cystometrogram.
20. Define bradycardia. Mention two conditions in which it occurs.
21. What is Hering Breuer's reflex?
22. Define ovulation. Give its hormonal basis. On which day of the cycle does it occur?
23. Functions of Ribosome and Mitochondria
24. What is Myxedema? Enumerate any four clinical features.
25. Enumerate the mechanisms by which body loses heat.
26. What is Rouleaux formation?
27. Components of the reflex arc

Rajiv Gandhi University of Health Sciences, Karnataka

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I Year B.P.T. Degree Examination – APRIL-2019

Time: Three Hours Max. Marks: 80 Marks

BIO-CHEMISTRY (RS-3 & RS-4)
Q.P. CODE: 2703

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

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Explain sources, daily requirement, functions and deficiency manifestations of vitamin A.
2. Mention the steps of Tricarboxylic acid cycle. Add a note on energetics.
3. What is normal blood pH? Explain the role of kidneys in maintaining acid base balance.

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

4. Functions of calcium
5. Explain briefly the process of muscle contraction.
6. Explain the steps of Glycogenolysis.
7. Structural classification of amino acids
8. What are lipoproteins? Mention the functions of lipoproteins
9. What are the difference between kwashiorkar and Marasmus?
10. Urea cycle
11. Mention the factors affecting enzyme activity.
12. Explain Ketogenesis.
13. Classify diabetes mellitus. Write the complications of diabetes mellitus

SHORT ANSWERS 10 x 2 = 20 Marks

14. Enumerate any two functions of iron.
15. Functions of collagen.
16. Enumerate any two hormones regulating blood glucose.
17. Write any two causes of metabolic acidosis.
18. What is the role of ADH in regulation of water?
19. Enumerate any two functions of Phospholipids.
20. What is the normal osmolarity of blood?
21. Name any two preservatives used for storage of urine.
22. Enumerate any four rich sources of iron.
23. Enumerate deficiency manifestations of Thiamine, Vitamin C.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - APRIL-2019

Time: Three Hours Max. Marks: 100 Marks

BIO-MECHANICS (Revised Scheme – 4)

Q.P. CODE: 2707

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define Posture and explain in detail about Kinetics and Kinematics of Posture.
2. Discuss in detail about Mechanics of Ventilation.
3. Describe in detail about structure and function of arches of foot.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Compare the use of cane on ipsilateral and contralateral side of injury.
5. Explain the extensor mechanism of Hand.
6. Enumerate the different types of precision grips with muscle action.
7. Discuss the importance of anatomical pulleys in physiotherapy.
8. Enumerate the different types of force systems with relation to human body.
9. Discuss any five differences between slow twitch and fast twitch muscle fibers.
10. Explain in brief about static stabilizers of knee joint.
11. Mention in detail about determinants of gait.
12. Explain in brief about kinematics of cervical spine.
13. Sliding filament theory of muscle contraction
14. Movement analysis of sit to stand
15. Mention the role of palmar arches in gripping an object.
16. Mention the various factors affecting Muscle function.
17. Closed kinematic chain and open kinematic chain with examples

SHORT ANSWERS 10 x 2 = 20 Marks

18. Hysteresis
19. Pes planus and Pes cavus
20. Warternberg sign
21. What is squinting of patella?
22. What is Closed packed position and Open packed position?
23. Coxa valga and Coxa vara
24. Define work, power and energy.
25. Significance of Carrying angle
26. Name the distance variables of gait.
27. Name the muscles responsible for Mastication.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL-2019

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 (Answer any Two) 2 x 10 = 20 Marks

1. Define upper motor neuron, lower motor neuron. Differentiate between UMNL and LMNL.
2. With the help of a graph explain the mechanics of ventilation.
3. Define a motor unit. Explain its role in muscle contraction.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Define Anemia. Briefly discuss the clinical classification of Anemia.
5. List the composition of saliva and mention its functions.
6. Explain Bohr's effect and Haldane effect.
7. List four methods of contraception in the males and females.
8. Explain the mechanism of Wallerian degeneration.
9. Discuss the resorption of Sodium and its regulation adapted by the kidneys.
10. Enumerate the anterior pituitary hormones. Explain the functions of growth hormone.
11. Describe the features of motor homunculus.
12. Briefly explain the respiratory changes taking place during exercise.
13. Enumerate the secondary sexual characteristic in a male.
14. Describe the body mechanisms by which it tolerates cold environment.
15. Briefly discuss the events in second phase of deglutition.
16. With a neat labeled diagram outline the conducting system of the heart.
17. Tabulate the differences between I and II heart sounds.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Trace the olfactory pathway.
19. Define chloride shift.
20. State the Starling law of force of contraction.
21. Draw a cystometrogram.
22. Define bradycardia. Mention two conditions in which it occurs.
23. What is Hering Breuer's reflex??
24. Functions of Ribosome and Mitochondria
25. Enumerate the mechanisms by which body loses heat.
26. What is myxedema? Enumerate any four clinical features.
27. What is Rouleaux formation?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL-2019

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 Two) 2 x 10 = 20 Marks

1. Describe in detail the tricarboxylic acid cycle and the energy production. Add a note on its amphibolic role.
2. Classify amino acids with examples. Mention Chemical properties of amino acids.
3. Describe in detail the sources, absorption, functions and factors regulating blood calcium level. Discuss deficiency manifestations of calcium.

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

4. tRNA
5. Classify enzymes with suitable examples.
6. Wald's visual cycle
7. Active form of vitamin D and its biochemical role
8. Digestion and absorption of carbohydrates
9. Phenylketonureia
10. Glycogen synthesi
11. Renal regulation of blood
12. Isoenzymes and their clinical significance
13. Phospholipids

SHORT ANSWERS 10 x 2 = 20 Marks

14. Name the serum electrolytes and give their normal values.
15. Mention the hormones involved in blood glucose level regulation.
16. What are dietary fibers? Write two examples.
17. Calorific value
18. Mention two causes for: 1. Respiratory acidosis 2. Metabolic acidosis.
19. Chargff 's rule
20. Isoelectric PH
21. Essential fatty acids
22. KM value and its significance
23. Palegra

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL-2019

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 (Answer any Two) 2 x 10 = 20 Marks

1. Define muscle tension and explain the factors affecting muscle tension. Add a note on length tension relationship of a muscle.
2. Define movement analysis and explain the analysis of lifting in detail.
3. Describe the structure of subtalar joint in detail and explain the significance of plantar arches of foot.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Describe kinematics of elbow joint.
5. Deviations of posture in sagittal plane
6. Dynamic stability of shoulder joint
7. Trendelenberg gait
8. Structure of temperomandibular joint
9. Pump handle and bucket handle movement of ribs
10. Anatomical pulleys
11. Explain force velocity relationship of a muscle.
12. Classify synovial joints in detail.
13. Briefly explain concept of active and passive insufficiency.
14. Define end-feel and enumerate various types of end-feel.
15. Explain time and rate dependent properties of connective tissue.
16. Enumerate various power grips of hand.
17. Briefly explain determinants of gait in detail.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Spurt and Shunt muscle
19. Cubitus valgus and varus
20. Importance of levers in physiotherapy
21. Pes cavus and pes planus
22. Q angle and its significance
23. Close packed and loose packed position
24. Define goniometer and mention different types of goniometer.
25. Concavo convex rule
26. Define isotonic contraction and its types.
27. Anteversion and retroversion

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - APRIL-2019

Time: 3 Hours | Max. Marks: 40 Marks

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 Personality. Describe the projective tests of personality.
2. What is Psychoanalysis? Describe the theory of Psychoanalysis by FREUD.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Leadership styles
4. Adolescence stage
5. Changes that occur during emotions
6. Factors affecting learning
7. Attitude change

SHORT ANSWERS 5 x 2 = 10 Marks

8. Hallucination
9. Frustration
10. Self-Actualization
11. Introspection
12. Advantages and disadvantages of intelligence tests

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - APRIL-2019

Time: 3 Hours Max. Marks: 40 Marks

SOCIOLOGY (RS – 5)

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 difference between primary and secondary group.
2. Explain the characteristics of rural community.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Agencies of socialization
4. Sociology and anthropology
5. Types of family
6. Urban community problems
7. Culture and health

SHORT ANSWERS 5 x 2 = 10 Marks

8. Case study
9. Anticipatory socialization
10. Social group
11. Social problem
12. Culture

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

ANATOMY (RS-3 & RS-4)

Q.P. CODE: 2701

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

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the origin, course, relation, branches & applied anatomy of axillary artery.
2. Describe the blood supply of brain.
3. Describe the knee joint under articular surfaces, ligaments, movements, relations & applied anatomy.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Trachea
5. Femoral artery
6. Ovary
7. Upper end of humerous
8. External features of liver
9. Arterial supply of stomach
10. Pelvic floor muscles
11. Great saphaneous vein
12. Popliteal fossa
13. Axillary nerve
14. Gluteus maximus
15. Cerebellum
16. Internal Capsule
17. Radioulnar joint

SHORT ANSWERS 10 x 2 = 20 Marks

18. Histology of elastic cartilage
19. Attachments on coracoid process of Scapula
20. Parts of Gall bladder
21. Name the recess of pleura
22. Parts of hind brain
23. Branches of medial cord of brachial plexus
24. Any four branches of abdominal aorta
25. Layers of Scrotum
26. Enumerate the Quadriceps muscles
27. Name the carpal bones.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

HUMAN PHYSIOLOGY (RS-3 & RS-4)

Q.P. CODE: 2702

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the hazards of mismatched blood transfusion.
2. Define blood pressure. Give the normal values. Explain the long-term mechanism regulating it.
3. Explain the actions of growth hormone and write a brief note on Acromegaly.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Factors affecting erythropoiesis
5. Draw the diagram of visual pathway
6. Hazards of mismatched blood transfusion
7. Brief note on liver
8. Functions of blood
9. Stages of spermatogenesis
10. Dark adaptation
11. Functions of plasma proteins
12. Two contraceptive methods in females
13. Movements of small intestine
14. Autoregulation of renal blood flow
15. Describe any two types of hypoxia.
16. Explain the electrocardiogram (ECG) with waves and intervals.
17. Composition and functions of succus entericus

SHORT ANSWERS 10 x 2 = 20 Marks

18. Define glomerular filtration rate and give the normal value.
19. List hormones of hypothalamus.
20. Sarcomere
21. Hormones secreted by adrenal cortex
22. Sertoli cells
23. Name various long volumes and capacities.
24. Name the components of reflex arc.
25. List the functions of platelets.
26. Myxoedema and cretinism
27. Define Glomerular Filtration Rate (GFR). Give normal value.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 80 Marks

BIO-CHEMISTRY (RS-3 & RS-4)

Q.P. CODE: 2703

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

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Enumerate any six functions of liver. Classify liver function tests with example and their utility.
2. Explain how acid base status is regulated by the kidney in the body.
3. Explain the steps involved in β oxidation of palmitic acid. Add a note on energetics.

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

4. Explain the steps of glycogenesis.
5. Explain briefly the process of muscle contraction.
6. Define hormones. Classify hormones with examples.
7. Explain how iron levels in the body is maintained and stored. Add a note on deficiency manifestations.
8. What are the active forms of vitamin A? What are its functions?
9. What are the difference between kwashiorkar and Marasmus?
10. How ammonia is detoxified in the body?
11. What are the functions of cholesterol?
12. Explain Ketogenesis.
13. Define diabetes mellitus. Classify its different types.

SHORT ANSWERS 10 x 2 = 20 Marks

14. Rothera's test
15. What is lactose intolerance? What are its features?
16. What is phenyl Ketonuria? What is the enzyme defect in it?
17. Functions of mitochondria
18. Enumerate four key gluconeogenic enzymes.
19. Enumerate any two biologically important peptides.
20. What are essential amino acids? Give example.
21. What is PUFA?
22. What is the function of VLDL and LDL?
23. Enumerate any two functions of Phospholipids.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - OCT-2019

Time: Three Hours Max. Marks: 100 Marks

BIO-MECHANICS (Revised Scheme – 4)

Q.P. CODE: 2707

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define Gait cycle and explain in detail about sagittal plane analysis of Gait.
2. Define Force and explain in detail about force components with examples.
3. Explain in detail about structure and function of Hip joint, and add a note of unilateral stance.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Discuss in detail about plantar arches.
5. Define posture and mention about various types of abnormal posture.
6. Discuss the biomechanics of Knee joint.
7. Enumerate various grips of Hand in detail.
8. Mention in brief about viscoelectric properties of connective tissue.
9. Scapulo-humeral rhythm
10. Classify different types of Muscle contraction with examples.
11. Define Equilibrium and add a note on different types of equilibrium.
12. Explain in brief about postural control.
13. Enumerate synovial joints in detail.
14. Explain the locking and unlocking mechanism of Knee joint.
15. Pronation and Supination twist
16. Parallel force systems
17. Explain in brief about arthrokinematics and osteokinematics of Elbow Joint.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Static and Dynamic friction
19. What are Tonic and Phasic muscles?
20. Metatarsal break
21. Patella alta and patella baja
22. What is Plumb line measurement?
23. Angle of Inclination
24. Name the Expiratory muscles.
25. Static and Dynamic balance
26. Cadence
27. Define Mechanical advantage.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

HUMAN ANATOMY (RS - 5)

Q.P. CODE: 2731

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Testis – external features, structure, blood supply and add a note on cryptochorchidism.
2. Describe the shoulder joint under following headings: bones forming the joint, ligaments, muscles and movements at the joint.
3. Describe mammary gland under following headings: structure, blood supply, lymphatic drainage, applied anatomy.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Posterior triangle of neck
5. Greater omentum
6. Supports of uterus
7. Lateral ventricle
8. External carotid artery
9. Diaphragm
10. External features of stomach
11. Pelvic floor muscles
12. Knee joint – type, ligaments, movements of muscles
13. Supra renal gland and its hormones
14. Urinary bladder – external features, relations and ligaments
15. Write the differences between small and large intestine.
16. Cubital fossa – boundaries, content and applied anatomy
17. Corpus callosum

SHORT ANSWERS 10 x 2 = 20 Marks

18. Name the extra biliary apparatus.
19. Origin and termination of thoracic duct
20. Meninges
21. Name the branches of internal iliac artery.
22. Iliotibial tract
23. Hilum of right lung
24. Name the rotator cuff muscles.
25. Draw and label the circle of Willis.
26. Dorsalis pedis artery
27. Name the parts of uterine tube.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

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 (Answer any Two) 2 x 10 = 20 Marks

1. Define cardiac cycle. Explain the different phases of cardiac cycle with their duration.
2. Discuss the changes of each stage of erythropoiesis. Add a note on the factors regulating it.
3. Trace the pathway for pain sensation. Explain gate theory of pain. Describe referred pain.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Define hypoxia. Tabulate the different types of hypoxias giving examples for each.
5. What is flexion withdrawal reflex? Explain its mechanism.
6. Function of thalamus
7. Explain the mechanism of spermatogenesis.
8. Define blood transfusion. Discuss the types of blood transfusion.
9. Briefly discuss the functions of middle ear.
10. Describe defaecation reflex with a neat labeled diagram.
11. Enumerate the function of skin.
12. Explain the neural regulation of respiration.
13. Functions of testosterone
14. Draw a synapse. Describe the synaptic transmission taking place across the synapse.
15. Discuss the physiological role of Insulin. Add a note on Diabetes Mellitus.
16. Define GFR. Explain any four factors regulating GFR.
17. Tabulate the differences between Saltatory conduction and Continuous conduction.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Functions of Golgi apparatus, endoplasmic reticulum.
19. Enumerate the contraceptive methods in females.
20. Define tachycardia. Mention two conditions in which it occurs.
21. Enumerate the functions of ADH.
22. Draw a diagram of strength-duration curve and label rheobase and chronaxie.
23. Define PCV (Haematocrit). State its significance.
24. What is gastrin? Give any two functions.
25. List any four Neuro-transmitters.
26. Write any two differences between fast and slow muscle.
27. List the neuro-endocrine reflexes.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

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 Two) 2 x 10 = 20 Marks

1. Explain Gluconeogenesis. Add a note on its importance.
2. Explain different types of enzyme inhibition with suitable examples.
3. 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

4. Functions of vitamin C
5. Define hormones. Classify hormones with examples.
6. What are lipoproteins? Name them and explain their functions.
7. Active transport mechanism across cell membrane
8. Structural classification of amino acids
9. Explain the mechanism of absorption of iron. Add a note on deficiency manifestations.
10. Define Basal Metabolic Rate. Mention the factors affecting BMR.
11. Functions of calcium
12. Renal function tests
13. Functional classification of proteins

SHORT ANSWERS 10 x 2 = 20 Marks

14. Name the key enzymes of glycogenolysis.
15. Functions of Golgi apparatus
16. Deficiency features of Vitamin A
17. Isoenzymes
18. Name any two important compounds obtained from Glycine.
19. Emulsification of fats
20. Write the normal reference ranges of a) Serum Potassium b) Serum Calcium.
21. Name Essential fatty acids. List their functions.
22. Structure of tRNA
23. Vandenberg's test

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

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 (Answer any Two) 2 x 10 = 20 Marks

1. Define posture and factors affecting posture. Explain sagittal plane analysis of posture.
2. Explain in detail about kinetics and kinematics of thoracic rib cage.
3. Define lever and explain about various orders of lever with suitable examples and neat diagrams.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Concurrent force systems
5. Enumerate various grips of hand.
6. Enumerate different types of muscle contraction.
7. Distance and temporal variables of gait
8. Analysis of lifting
9. Define gait and add a note on any two pathological gaits.
10. Palmar arches and its significance
11. Define Goniometer. Its principles, types and uses.
12. Define pulley and enumerate various pulleys present in human body.
13. Active and passive insufficiency
14. Static stability of shoulder joint
15. Analyse various pinches of hand.
16. Briefly classify joints in detail.
17. Supination and pronation twist

SHORT ANSWERS 10 x 2 = 20 Marks

18. Antalgic gait
19. Carrying angle
20. Functional position of wrist and hand
21. Mechanical advantage
22. Muscles of ventilation
23. Creep and relaxation
24. Angle of torsion
25. Degree of toe out
26. Index of insall and salviti
27. Define axis and plane.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - OCT-2019

Time: 3 Hours Max. Marks: 40 Marks

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. What is psychology? Explain interview method and inventory method.
2. What is learning? Describe the effective ways of learning.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Determinates of attention
4. Explain the assessment of intelligence.
5. Types of leadership
6. Deductive and inductive reasoning
7. Socio-psychological motives

SHORT ANSWERS 5 x 2 = 10 Marks

8. Sublimation
9. Ego
10. Conflict
11. Perception
12. Genius

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – OCT-2019

Time: 3 Hours Max. Marks: 40 Marks

Sociology (RS-5)

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. Mention any five social problems of society and Explain any one social problem with its causes, effects and solutions.
2. Explain the factors of Social change.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Agencies of socialization
4. Components of culture.
5. Case study
6. Health effects of Alcoholism
7. Characteristics of Secondary groups

SHORT ANSWERS 5 x 2 = 10Marks

8. Monogamy
9. Population explosion
10. Social Psychology
11. Patriarchal family
12. Hindu Marriage Act

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