Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – May 2016

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. Name the Thenar and hypothenar muscles. Describe any one Thenar and hypothenar muscle.
2. Describe hip joint under type, articulating surfaces, ligaments, movements and applied anatomy.
3. Describe the blood supply of brain.

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

4. Medial surface of left lung
5. Internal capsule
6. Deep peroneal nerve
7. Trapezius
8. Femoral artery
9. External features of stomach
10. Sternum
11. Testis
12. Fate of corpus luteum
13. Pelvic floor muscles
14. Basal ganglia
15. Axillary artery
16. Cerebellum
17. Cubital fossa

SHORT ANSWERS 10 x 2 = 20 Marks

18. Layers of scrotum
19. Parts of parietal pleura
20. Circle of willis
21. Parts of upper end of humerus
22. Name the branches of lateral cord of brachial plexus.
23. Name the intercostal muscles.
24. Parts of vertebrae
25. Name the cells of the bone.
26. Classify simple epithelium.
27. Parts of small intestine

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – May 2016

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. Answer all questions

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

1. Trace the pyramidal pathway. Define paraplegia, hemiplegia, monoplegia and hemiparesis.
2. Discuss the properties of neurons.
3. Define arterial blood pressure. Explain the factors regulating it.

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

4. Neural regulation of respiration
5. Functions of platelets
6. Physiological actions of cortisol
7. Outline the functions of basal ganglia.
8. Define hypoxia. Differentiate between the different types of hypoxia.
9. Factors affecting venous return
10. Defaecation reflex
11. Inulin clearance as a measure of GFR
12. Enumerate the GI hormones. Discuss the action of any two.
13. Explain the stretch reflex with the help of a diagram.
14. Any four contraceptive methods in males and females
15. Tabulate the differences between I and II Heart Sounds.
16. Human body's adaptation to cold environment
17. Explain the ionic basis of Action Potential.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Babinski sign
19. Myopia and Hypermetropia
20. Draw a neuron and label its parts.
21. Starling's law of force of contraction
22. Functions of haemoglobin
23. Distribution of different taste on the tongue
24. Name the plasma proteins.
25. Angiotensin II
26. Hormone responsible for milk-letdown reflex
27. Types of artificial respiration

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – MAY 2016

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. Describe the Beta-oxidation of Palmitic acid. Add a note on its energetics.
2. Classify Enzymes. Describe Competitive Inhibition with suitable examples.
3. Describe the chemistry, sources, RDA, biochemical functions and deficiency manifestation of Vitamin C (Ascorbic acid).

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

4. Protein Energy malnutrition (PEM)
5. Classify proteins based on functions.
6. Hormonal regulation of blood Glucose levels
7. Biologically important compounds formed from Glycine.
8. Homopolysaccharides
9. Absorption, transport, storage and excretion of Iron
10. Mechanism of action of steroid hormones
11. Biochemical functions of Pyridoxine.
12. Differences between DNA and RNA
13. Contractile proteins in muscle

SHORT ANSWERS 10 x 2 = 20 Marks

14. Respiratory Acidosis
15. Lysosome.
16. BMR
17. Coenzyme forms of Riboflavin and Niacin.
18. Normal serum levels of Sodium and Potassium.
19. Glyco-proteins
20. Micelle
21. Diagnostic importance of serum Amylase and Acid Phosphatase
22. Active site of enzymes
23. Calorific Value

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – MAY 2016

Time: 3 Hours | Max. Marks: 40 Marks

GeneralPsychology

Q.P. Code : 2705

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

(Note:BothQPCodes2705and2706aretobeansweredwithintotaldurationof3hours)

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

1. What is psychology? Explain the scope of psychology.
2. What is learning? Explain operant conditioning theory.

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

3. Factors influencing perception
4. Explain any two theories of emotion
5. Steps of creative thinking
6. Explain any two types of personality
7. Development of attitude

SHORT ANSWERS 5 x 2 = 10Marks

8. Heredity
9. Hallucination
10. Intelligence
11. Thinking
12. Stress

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – MAY 2016

Time: 3 Hours Max. Marks: 40 Marks

Sociology

Q.P. Code: 2706

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary
(Note:BothQPCodes2705and2706aretobeansweredwithintotaldurationof3hours)

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

1. Define socialization? Explain various agencies of socialization.
2. Define rural community. Explain the features and problems of rural community.

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

3. Types of family
4. Role of social factors on health and illness
5. Methods of sociological investigations
6. Problems of women in employment
7. Culture and its impact on health

SHORT ANSWERS 5 x 2 = 10 Marks

8. Causes of alcoholism
9. Social groups
10. Medical social worker
11. Problems of underprivileged
12. Relationship of sociology and anthropology

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - MAY 2016

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. Describe the structure of a cervical vertebra and biomechanics of the cervical spine.
2. Describe the articulations of knee joint. Explain the screw home phenomena.
3. What is posture? What are the types of posture? Discuss postural reflex and explain various postural deviations of spine.

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

4. Determinants of gait
5. Explain the structure of wrist joint and discuss sequence of events occurring during movements of wrist joint.
6. Define force. What are the systems of force? Write about resolution of the force vector.
7. Discuss in detail with examples the precision handling.
8. Explain the functions of temporomandibular joint.
9. Define arthrokinematics. Explain the types of arthrokinematics with examples.
10. Mention the ligaments of the vertebral column and explain their role in stability of it.
11. What is a meniscus? What happens to them during movements of the knee? Explain their contributions to the movements.
12. What is the functional unit of a muscle? Explain various types of muscle fibers.
13. Explain dynamic stability of shoulder.
14. What is a joint? Write their classification with examples for each.
15. Describe biomechanics of sub-talar joint in brief.
16. Classify pulleys and explain any one with example.
17. Explain the formations of plantar arches and add note on their function.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Coefficient of static friction – give one example.
19. Mechanical advantage
20. Order of stability with example in human body
21. Tide mark and its importance
22. Angular velocity
23. Postural changes during pregnancy
24. Walking velocity
25. Supinated foot
26. Which knee joint ligaments contribute to AP stability and how they provide stability?
27. Mechanical stresses

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – AUG/SEP 2016

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. Explain the extraocular muscles.
2. Explain the Hip Joint.
3. Name the superficial flexors of forearm. Write in detail the origin, insertion, nerve supply and action of any three muscles.

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

4. Cartilages of larynx
5. Histology of hyaline cartilage
6. Right kidney
7. Anterior cerebral artery
8. Inguinal canal
9. Broncho pulmonary segment of the right lung
10. Midbrain at the level of inferior colliculus
11. Dorsalis pedis artery
12. Deltoid
13. Adductor Magnus
14. Internal jugular vein
15. Extra cranial course of facial nerve
16. Carpo metacarpal joint of the thumb
17. Upper end of humerus

SHORT ANSWERS 10 x 2 = 20 Marks

18. Name the structures in the roof of posterior triangle.
19. Name the muscles of middle ear.
20. Name the tributaries of inferior vena cava.
21. Name the parts of the upper end of femur.
22. Nerve supply of the tongue
23. Name the parts of thyroid gland.
24. Name the parts of pancreas.
25. Name the muscles of the anterior compartment of the arm.
26. Name the structures piercing clavipectoral fascia.
27. Name the recess of pleura

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP -2016

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. Answer all questions

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

1. Discuss the mechanics of ventilation with a graph showing the pressure changes.
2. What is reflex and a reflex arc? Discuss the properties of reflexes.
3. Define Action Potential. With a well labeled graph explain the ionic basis of Action Potential

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

4. Define GFR. Enumerate the factors affecting GFR and explain any two.
5. Explain the factors affecting erythropiesis
6. Enumerate the properties of cardiac muscle. Explain the property of refractory period
7. Discuss the neural regulation of respiration
8. Briefly describe the pharyngeal phase of deglutition
9. Differentiate between REM and NREM sleep
10. State Landsteiner's Law. Enumerate the uses of blood grouping
11. Trace the pathway for fine touch
12. Describe the body mechanisms by which it tolerates hot environment
13. Define arterial blood pressure. Discuss the immediate regulation of blood pressure.
14. Differentiate between Obligatory and Facultative processes of water reabsorption
15. What is myasthenia gravis? Describe its cause and characteristic features
16. Action of thyroid hormone
17. How is image formation altered in myopia and hypermetropia? How do you correct them?

SHORT ANSWERS 10 x 2 = 20 Marks

18. State Starling's law of force of contraction
19. Methods of contraception in males
20. Functions of ribosome
21. Write any two differences between rods and cones
22. List the actions of calcitonin
23. Surfactant
24. What is a sarcomere?
25. Define dead space. Mention the types of dead space
26. Draw and label the normal ECG waves
27. Define saltatory conduction

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP 2016

Time: 3 Hours | Max. Marks: 40 Marks

General Psychology

Q.P. Code: 2705

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2705 and 2706 are to be answered within total duration of 3 hours)

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

1. What is 'leadership'? Explain the types of leaders.
2. What is 'emotion'? Explain 'James-Lange' theory of emotion.

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

3. What is meant by 'trial – error learning'?
4. How do attitudes develop?
5. What is 'Rorschach' test of personality?
6. What is 'achievement' motive?
7. Explain 'denial' as a defense mechanism.

SHORT ANSWERS 5 x 2 = 10 Marks

8. 'Double approach' conflict
9. Frustration
10. Psychoanalysis
11. Thinking
12. 'Incentive motive'

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP 2016

Time: 3 Hours | Max. Marks: 40 Marks

Sociology

Q.P. Code: 2706

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2705 and 2706 are to be answered within total duration of 3 hours)

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

1. Define family. Explain the functions of the family.
2. Define urban community. Discuss the health hazards of urban community.

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

3. Methods of sociological investigation
4. Social change and stress
5. Unemployment as a social problem
6. Role of medical social worker in hospital and rehabilitation setup
7. Agencies of socialization

SHORT ANSWERS 5 x 2 = 10 Marks

8. Polyandry
9. Social security
10. Social deviance
11. Cultural lag
12. Problems of the elderly

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - SEP - 2016

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. Mention the phases of gait cycle. Explain sagittal plane analysis of gait.
2. Discuss in detail kinetics and kinematics of thoracic rib cage.
3. Classify joints in detail with examples and neat diagrams.

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

4. Discuss in brief about length tension and force velocity relationship of a muscle.
5. Define anatomical pulley and explain in detail with an example in human body.
6. Define Lever and explain in detail about III order lever with example and neat diagram.
7. Explain the structure of Tempero mandibular joint.
8. Musculo skeletal changes following COPD
9. Classification of synovial joints in detail
10. Classify different types of joint lubrication in detail.
11. Time dependent and rate dependent properties of connective tissue
12. Energy expenditure of gait
13. Kinetics and kinematics of posture
14. Enumerate various pinches of hand complex.
15. Structure of shoulder complex
16. Mention in detail about various deviations occurring at knee joint.
17. Static stability of hip joint

SHORT ANSWERS 10 x 2 = 20 Marks

18. Good and bad posture
19. Name the ligaments of shoulder joint.
20. Functions of Meniscus
21. Clinical significance of plantar arches
22. Static and dynamic balance
23. Name the factors affecting muscle function.
24. COG and LOG
25. Kinetics and Kinematics
26. Angle of Inclination of Humerus
27. Active insufficiency

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – AUG/SEP 2016

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. Describe the origin, insertion, function, blood supply and nerve supply of quadriceps femoris muscle.
2. Discuss in detail external anatomy, internal structure, blood supply and relations of heart.
3. Describe the origin, course, termination and applied anatomy of radial nerve.

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

4. Ankle joint
5. Sternocleidomastoid muscle
6. Cubital fossa
7. Macroscopic structure and histology of long bone
8. Anatomy of kidney
9. Pituitary gland
10. Cross section of spinal cord
11. Uterus
12. Anatomy of lymph node
13. Carotid artery and their branches
14. Femur
15. Stratified squamous epithelium
16. Skin
17. Diaphragm

SHORT ANSWERS 10 x 2 = 20 Marks

18. Structure of spermatozoa
19. Name tarsal bones
20. List cranial nerves in order
21. Coronary arteries
22. Types of tonsil
23. Enumerate sense organs
24. Lumbricals
25. Peritoneum
26. Structure passing through hilum of lung
27. Name the cells of bone

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP -2016

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. Answer all questions

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

1. Define cardiac cycle. What is its normal duration? Describe the left ventricular pressure changes during one cardiac cycle.
2. Describe the neural regulation of respiration with neat labelled diagram. Add a note on Hering Breuer's reflex.
3. Explain the sliding filament theory of muscle contraction and list the contractile proteins of the skeletal muscle.

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

4. Define and classify anemia. Give the cause and symptoms of Pernicious anemia.
5. Briefly describe the actions of Growth hormone.
6. Trace and explain the pathway for fine touch
7. Explain the hormonal regulation of normal blood calcium level.
8. Describe the mechanism of reabsorption of glucose in the renal tubule.
9. Give an account of circulation and functions of CSF.
10. Define Action Potential. Draw and label different phases of action potential giving ionic basis for each.
11. What is effective Filtration Pressure? Give its normal value. State how this value is achieved.
12. Name the types of Deafness and write the tests to differentiate them.
13. Give an account of different phases of regulation of gastric juice secretion.
14. Briefly describe the changes occurring in females at Puberty.
15. Differentiate cell mediated immunity from humoral immunity
16. Briefly explain the metabolic actions of Growth hormone.
17. Give an account of Micturition reflex in man

SHORT ANSWERS 10 x 2 = 20 Marks

18. Draw and label strength-duration curve.
19. Write the functions of Sertoli cells.
20. Write a note on Facilitated diffusion with example.
21. What is Cholegogue? Give an example.
22. What is Haemophilia? How it is caused?
23. Define and write the cause for Acromegaly.
24. Write a note entero-hepatic circulation.
25. What is Atonic bladder? How it is caused?
26. Draw and label Cystometrogram.
27. Give the cause and correction for Myopia.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP 2016

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 Emotion. Write in detail about the factors that affect the emotions of an individual.
2. Define Motivation. Describe Maglow's theory of hierarchical needs.

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

3. Causes of mental conflict
4. Factors affecting learning
5. Qualities of leadership
6. Characteristics of intelligent person
7. Observation method

SHORT ANSWERS 5 x 2 = 10Marks

8. Perception
9. Hunger motive
10. Stress
11. Rationalization
12. Reasoning

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – SEP - 2016

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. Explain the structure of shoulder joint. Write about the dynamic stabilizers of shoulder joint.
2. Write in detail the properties of connective tissues.
3. Name the ligaments of knee joint? Explain in detail the screw home mechanism in weight bearing and non-weight bearing positions of knee joint.

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

4. Load – deformation curve
5. Explain joint lubrication models.
6. What are the types of muscle contractions? Write a brief note on eccentric and concentric contraction.
7. Kinematics of rib cage during ventilation
8. Note on Lumbo-pelvic rhythm
9. Write in detail about concave – convex rule with example.
10. What are the types of grips? Write in brief about tip-to-tip prehension with example.
11. Analyze the forces acting on hip joint during unilateral stance
12. Write a note on tibiofemoral meniscus.
13. Explain Newton's law of motion with examples.
14. Write about structure and function of plantar arches.
15. Analyze an ideal posture from anterior and lateral directions
16. Define lever. Write the types of lever with examples.
17. Write a note on diarthrodial joints.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Carrying Angle
19. Movements of patella
20. Anatomical pulley with example
21. Types of posture
22. Write the names of muscle proteins
23. Odd facet
24. Angle of inclination
25. Patella plica
26. Planter aponeurosis
27. Two postural deviations in saggital plane

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP 2016

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 Culture. Discuss the cultural factors in health and disease.
2. Define Social Group. Explain in detail about the various social groups.

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

3. Social survey
4. Poverty related to health and disease
5. Problems of women in employment
6. Characteristics of rural community
7. Functions of family

SHORT ANSWERS 5 x 2 = 10Marks

8. Socialization
9. Medical social worker
10. Urbanization
11. Social change
12. Monogamy

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