Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – April 2014

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. Name the Cranial nerves in order. Explain facial Nerve in Detail
2. Describe the external features of Heart. Explain Right atrium in detail
3. Name the thenar and hypothenar muscles. Describe any one Thenar and hypothenar Muscle

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

4. External carotid artery
5. Constitution of Larynx
6. Lateral Ventricle
7. Openings in the Diaphragm
8. Femoral Artery
9. Oesophagus
10. Inguinal canal
11. Uterus
12. External features of liver
13. Axillary nerve
14. Upper end of femur
15. Evertors of the foot
16. Midbrain
17. External Features of right lung

SHORT ANSWERS **10 x 2 = 20 Marks**

18. Parts of Gall bladder
19. Name the recess of pleura
20. Name the attachments on greater tuberosity
21. Name the branches of medial cord of brachial plexus
22. Name the ligaments of elbow joint
23. Name the tarsal bones
24. Name the hamstring muscles
25. Parts of Corpus callosum
26. Name the nucleus of the cerebellum
27. Histology of Hyaline Cartilage (only diagram)

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2014

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. Define arterial blood pressure. Briefly explain the regulation of arterial blood pressure.
2. Draw the structure of a triad and describe its role in muscle contraction.
3. Define synapse. Discuss the properties of synapse.

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

4. Tabulate any three differences between skeletal muscle, cardiac muscle and smooth muscle
5. Describe the Intrinsic mechanism of coagulation
6. Define cardiac cycle. Explain the phases of cardiac cycle taking place in the ventricles
7. Explain stretch reflex with the help of a diagram
8. Discuss the different phases of menstrual cycle with their hormonal basis
9. Functions of hypothalamus
10. Briefly explain the oxygen dissociation curve
11. Trace the pathway for fine touch
12. Describe the countercurrent mechanism taking place in the renal medullary insterstitium
13. Enumerate the functions of plasma proteins
14. Phases of gastric juice secretion
15. Define anemia. Discuss the clinical classification of Anemia
16. Action of parathyroid hormone
17. Functions of middle ear

SHORT ANSWERS **10 x 2 = 20 Marks**

18. State Starling's law of force of contraction
19. List the functions of Juxta-glomerular apparatus
20. Define Osmosis
21. Name the neuroglial cells. What is function of astrocytes
22. Enumerate the functions of angiotensin II
23. Intrapulmonary pressure and its normal value
24. Name the contractile proteins
25. Define dead space. Mention the types of dead space
26. Draw an label the normal ECG waves
27. Define muscle tone.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2014

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. What is normal pH of the blood? Describe different mechanisms in the maintenance of acid base balance.
2. What is glycolysis? Describe its reactions and a note on its energetic.
3. Describe the sources, requirement, metabolic functions and deficiency manifestations of vitamin D.

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

4. Urea cycle
5. Functions of calcium
6. Respiratory acidosis
7. Fatty liver
8. Biochemical function and absorption of Iron
9. Dietary fibres
10. Specific dynamic action
11. Enzymes of diagnostic importance
12. Renal regulation of acid-base balance
13. Phospholipids

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Name the co-enzymes of a) Niacin b) Folic acid
15. Cyclic –AMP
16. Transamination
17. Nucleotides of biological importance
18. Essential fatty acids
19. Phenyl Ketonuria
20. Proenzymes
21. Name the vitamin deficient in a) Beri-Beri b) Pellagra
22. Disaccharides
23. Ribosomes

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April-2014

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

BIOMECHANICS (RS-3)

Q.P. CODE: 2704

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. What is difference between osteokinematics and arthrokinematics? Describe the arthrokinematics and osteokinematics at the shoulder joint
2. Explain various types of power and precision grips with muscle action and joint position
3. What are the temporal and spatial parameters of gait? Describe the kinematics and kinetics of stance phase of gait cycle

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

4. Explain the Newton's laws of motion with examples
5. What is mechanical advantage? Explain mechanical advantage in relation to pulleys
6. What are the factors affecting muscle function? Add a note on shunt and spurt muscles
7. Define lever, discuss its application in physiotherapy
8. Define passive insufficiency. Explain in detail with appropriate examples
9. Write a note on open and closed kinematic chain exercises with appropriate examples
10. Define posture, discuss normal and abnormal postures
11. Explain the mechanics of rib cage movement during inspiration
12. Explain the gleno-humeral rhythm
13. Describe the various walking aids used in rehabilitation

SHORT ANSWERS **10 x 2 = 20 Marks**

14. Pes planus
15. Define torque
16. Ground reaction force
17. Carrying angle
18. Angle of pull
19. Define eleasticity
20. Q-angle
21. Isometric exercises
22. Hooke's law
23. Scoliosis

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2014

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. Define personality? Explain various methods of Assessing personality
2. What is instrumental Learning? Explain skinner's operant learning

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

3. Factors influencing perception
4. Personality Traits
5. Adolescence psychology
6. Psychological changes of emotion
7. Qualities of Leadership

SHORT ANSWERS **5 x 2 = 10Marks**

8. Psychological needs
9. Projection
10. Introspection
11. Industrial psychology
12. Motivation

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2014

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. Explain the factors of social change.
2. Characteristics of rural community

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

3. Classification of group
4. Stages of socialization
5. Types of family
6. Culture in health and illness
7. Social change and stress

SHORT ANSWERS **5 x 2 = 10Marks**

8. Joint family
9. Social group
10. Interview
11. Poverty
12. Culture

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - April-2014

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 and gait cycle. Explain in detail the determinants of gait.
2. Discuss in detail dynamic stability of Gleno-humeral joint.
3. Explain the structure of typical lumbar vertebrae. Add a note on function of the lumbar spine.

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

4. Define equilibrium. Discuss types of equilibrium with examples.
5. Write in detail the formation of arches in hand with its functions.
6. Define joint. Classify with examples and add a note on features of the synovial joints.
7. Explain the orders of lever with examples in human body and also role of levers in physiotherapy.
8. Explain in detail the mechanism of muscle contraction.
9. Write extensor mechanism of hand and add a note on its function.
10. Brief-out weight bearing of hip joint and explain the muscle function in unilateral stance with example.
11. Write a note on sterno-clavicular joint movements.
12. Write in detail the extensor mechanism of knee. Mention the ligaments of the knee.
13. Explain active insufficiency with an example.
14. What is the functional position of the hand? Explain biomechanics of grips with an example.
15. Kinetics of posture
16. Metatarsal break
17. Movement analysis – sitting to standing

SHORT ANSWERS **10 x 2 = 20 Marks**

18. Index of insall and salvitii
19. Function and control of disk of temporomandibular joint
20. Hystersis
21. Moment arm of force
22. Carpal tunnel syndrome
23. Nutation and counter Nutation
24. Carrying angle and its importance
25. DOMS
26. What are the changes occur in IVD under compression loading
27. Anatomical pulley

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