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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – Mar 2013

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 sciatic nerve under the following headings.
   a) formation with root value b) course & relations c) branches d) applied anatomy
2. Describe mammary gland under the following headings
   a) structure b) blood supply c) lymphatic drainage d) applied anatomy
3. Describe shoulder joint under the following headings
   a) parts forming the joint b) ligaments
   c) blood supply & nerve supply d) applied anatomy

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

4. Femoral canal
5. Inter costal muscles.
6. Spleen
7. Rectus sheath
8. Supports of uterus
9. Cubital fossa
10. Histology of thin skin
11. Posterior triangle of neck
12. Adductor canal
13. Buccinator muscle
14. Pericardium
15. Bronchopulmonary segments of left lung
16. Greater omentum
17. Sternal angle

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

18. Name the nuclei present in cerebellum.
19. Name two differences between artery and vein.
20. Enumerate the branches of Axillary artery.
21. Name the terminal branches of facial nerve.
22. Name four hormones secreted by anterior pituitary gland.
23. Functions of peritoneum
24. Parts of gall bladder
25. Name any two differences between large and small intestine.
26. Name the structures passing below the flexor retinaculum
27. Parts of parietal pleura

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2702_2011_1_S222

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

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. What is a synapse? Mention the different types of synapses. Explain any five properties of synapse
2. Explain the ionic changes of action potential. Add a note on salutatory conduction
3. Define cardiac cycle. Explain the different phases of cardiac cycle with their duration

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

4. Draw a spirogram. Define the lung volumes and write their normal value
5. List the stages of erythropoiesis and tabulate the factors affecting them
6. Write briefly the action of growth hormone
7. Describe the mechanism of oogenesis
8. What is pulmonary surfactant? Discuss its role in pulmonary function
9. Explain the conducting system of the heart
10. Enumerate the functions of skin
11. Tabulate the differences between I and II heart sounds
12. Enumerate the function and regulation of secretion of succus entericus
13. Explain the gate theory of pain
14. Describe the events of the different phases of menstrual cycle with their hormonal basis
15. Briefly outline the functions of cerebrum
16. Explain defaecation reflex
17. Differentiate between isotonic and isometric contraction

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

18. Define anemia. List the types of anemia
19. Haldane effect
20. Draw a nephron and label its parts
21. List four methods of contraception in the females
22. What is sex determination
23. What are anti – coagulants? Give any two examples
24. Define upper motor neuron and lower motor neuron
25. Angiotensin II
26. Differentiate between the rods and cones
27. Define GFR and give its normal value

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2703_2011_1_S102

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

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 sources, requirement, functions and deficiency manifestations of calcium. Add a note on its homeostasis
2. What is normal pH of blood? Describe different mechanisms in the maintenance of acid base balance
3. What is enzyme inhibition? Explain the various types of inhibition with examples

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

4. Digestion and absorption of lipids
5. Describe the structure of DNA
6. Classify the proteins with examples
7. Write the reactions of glycolysis
8. Important compounds derived from cholesterol
9. Functions of Vitamin A
10. Basal Metabolic Rate (BMR) and the factors affecting it
11. Van den Bergh test and its importance
12. Phospholipids
13. Calcium metabolism

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

14. Phenylktoneuria
15. Non-essential amino acids
16. Name two diagnostic important enzymes and their normal values
17. Protein energy malnutrition
18. Name the vitamin deficient in a) Beri – Beri b) Pellagra
19. Disaccharides
20. Respiratory acidosis
21. Lipotropic factors
22. Urea clearance test
23. Specific Dynamic Action

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2704_2011_1_S181

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

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. Define Gait. Explain in detail the phases of gait cycle
2. Describe anatomy of knee joint and add note on screw home phenomenon
3. Explain the structure of a muscle. Discuss various types of muscle contraction

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

4. Movement analysis of Squatting
5. Explain mechanics of rib cage during normal breathing
6. What do you mean by fundamental position? Write a note on it and explain any one in detail
7. Define therapeutic gymnasium. Explain the mechanical principles of
   a) Quadriceps table b) Bicycle ergometer
8. Define angle of pull. Explain the efficiency of muscle work with an example
9. Define elasticity. Explain the use of springs & pulleys in physiotherapy
10. What are the articulating structures of shoulder complex? Explain the dynamic stability of shoulder joint
11. Explain the supination twist
12. What are the advantages & disadvantages of group exercises?
13. Explain the dorsal digital expansion of hand

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

14. Define shunt & Spurt muscle
15. Define isokinetic exercises & any 2 effects of it
16. Write definition & factors contributing for scapula humeral rhythm
17. What is index plus minus foot?
18. List out the ligaments of spine
19. Archimedes principle & its significance
20. Write any four derived positions from hanging
21. Define and give example for concurrent system of force
22. What is carrying angle?
23. Trendlenberg gait

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2705_2011_1_S106

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

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. Describe classical conditioning model of learning
2. Explain the developmental factors of personality

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

3. Errors of perception
4. Insightful learning
5. Causes of frustration
6. Rationalization
7. Characteristics of personality

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

8. Attention
9. Abnormal psychology
10. Illusion
11. Interview
12. Education psychology

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2705_2012_1_S283

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

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 sociology? Describe its nature and scope in the field of physiotherapy
2. Define family? Describe the functions of family

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

3. Role of medical social worker
4. Characteristics of rural community
5. Causes of juvenile delinquency
6. Health effects of Industrialization
7. Cultural factors in health disorders

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

8. Define sociology
9. Crowd
10. Human adaptation
11. Define social change
12. Socialization

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2707_2011_1_S102

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - Mar 2013

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

Bio-Mechanics (RS4)

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. Discuss the various phases of gait in detail.
2. Write the biomechanics of knee complex movements in weight bearing.
3. Explain the stabilizing factors of lumbar spine.

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

4. Discuss types of equilibrium with examples
5. Load deformation curve.
6. Write a note on mobility of cervical region.
7. Write an note on kinetics of respiratory movements.
8. Classification of muscles.
9. Discuss the factors of stability at elbow
10. Power grip.
11. Write a note on sternoclavicular joint movements.
12. Extensor mechanism of hand.
13. Pelvic tilt.
14. Kinetics of posture.
15. Muscle length tension relationship.
16. Plantar arches and its functions.
17. Stability of ankle joint.

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

18. Visco elasticity
19. Temporo mandibular joint disc
20. Genu varum.
21. Moment arm.
22. Trendlenburg sign.
23. Pes planus.
24. Carrying angle
25. Stride length
26. Isokinetic muscle contraction
27. Gluteus maximum gait.

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2151_2011_1_S102

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (Physiotherapy) Degree Examination – Mar 2013

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

ANATOMY
(OS, RS & RS2)
Q.P. CODE: 2151

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

LONG ESSAYS (Answer any Four) **4 x 10 = 40 Marks**

1. Describe the hip joint under following headings: a) Type and articular surfaces b) Ligaments c) Movements and muscles producing the movements
2. Describe radial nerve under following headings: a) Origin b) Course c) Relations c) Branches e) Applied anatomy
3. Describe urinary bladder under following headings: a) Parts b) Coverings c) Parts and Relations d) Blood supply e) Applied aspects
4. Describe the Thyroid Gland under following headings: a) Position b) Coverings c) Parts and Relations d) Blood supply e) Applied aspects
5. Name the parts of a typical rib. Explain the movements of ribs during respiration and mention the muscles involved

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

6. Name the major openings of diaphragm and structures passing through it
7. Curvatures of vertebral column
8. Atlantoaxial joint
9. Deltoid muscle
10. Dorsalis pedis artery
11. Microscopic structure and features of lymph node
12. Classify synovial joints with examples
13. Corpus callosum
14. Boundaries and contents of femoral triangle
15. Radial nerve in the radial groove

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

16. Enumerate extra ocular muscles
17. Name four lateral branches of abdominal aorta
18. Name the ligaments of spleen and their contents
19. Enumerate four characteristic features of Hamstring muscles
20. Name the invertors and evertors of foot
21. Enumerate the proximal row of carpal bones
22. Laws of ossification
23. Name any four derivatives of endoderm
24. Name the parts of vertebrae
25. Enumerate parts of Basal Ganglia

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2152_2011_1_S41

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (Physiotherapy) Degree Examination – Mar 2013

Time: 3 Hours **Max. Marks: 50**

Marks

Physiology, Therapeutic Physiology And Biochemistry – Section A

Q.P. Code : 2152

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

(Note : Both QP Codes 2152 and 2153 are to be answered within total duration of 3 hours)

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

1. Describe the structure of neuromuscular junction and the transmission of nerve impulse across the neuromuscular junction
2. Describe the mechanism of blood coagulation
3. Name the posterior pituitary hormones. Describe the functions of any one of them

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

4. What is the normal rate of coronary blood flow? Explain the regulation of coronary blood flow
5. What is spermatogenesis? Explain the steps of spermatogenesis and the factors influencing it
6. Tabulate the differences between fast and slow pain
7. Give an account of classification of nerve fibres
8. Trace the pathway for vision

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

9. List the functions of hydrochloric acid in the stomach
10. Name the gonadotropic hormones. Mention the functions of each in the male
11. Tabulate the differences between facultative and obligatory reabsorption of water
12. What is surfactant?
13. Classify the muscles in the body

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2054_2012_1_S282

Rajiv Gandhi University of Health Sciences, Karnataka

First year B.Sc. (Physiotherapy) Degree Examination – Mar 2013

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

MEDICAL ELECTRONICS AND COMPUTER APPLICATIONS

(Old Scheme)

Q.P. CODE: 2054

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

LONG ESSAYS (Answer any Four) **4 x 10 = 40 Marks**

1. Explain briefly the working of a cathode ray oscilloscope with neat diagram
2. Explain the phenomenon of electromagnetic induction along with its therapeutic uses
3. Explain briefly the working of Ultrasound with a neat diagram
4. Explain the principle of operation of microwave diathermy with necessary diagram
5. Define electric shock. Describe the effects, treatment and prevention of shock

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

6. Write a note on safety devices
7. Explain-frequency, amplitude, sine wave
8. Role of computers in library
9. How are transducers classified
10. Discuss the applications of SWD
11. Uses of IRR and UVR therapy in physiotherapy
12. Explain " absolute refractory period" and relative efractory period
13. Functions of a server
14. Neuromuscular junction
15. Features in a printer

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

16. Define Ohm,s law
17. Two uses of computer in medical field
18. The advantages of ink-jet printer
19. Nerve conduction velocity
20. Two input devices
21. Two uses of cathode ray oscilloscope
22. What is a software
23. Define LASER
24. Define information
25. Write notes on a FUSE

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2055_2011_1_S102

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

Time: 3 Hours **Max. Marks: 50**

Marks

General Psychology

Q.P. Code : 2055

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

(Note : Both QP Codes 2055 and 2056 are to be answered within total duration of 3 hours)

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

1. Define personality. Explain the Freuds concept of personality
2. Explain the effective factors of learning
3. Define psychology. Explain any two schools of psychology

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

4. Characteristics of attitudes
5. Abraham maslows theory of motivation
6. Adulthood
7. Experiment method
8. Write a note on counseling

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

9. Intelligence
10. Emotion
11. Industrial psychology
12. Hyperesthesia
13. Self esteem

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2055_2011_1_S263

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

Time: 3 Hours **Max. Marks: 50**

Marks

Sociology

Q.P. Code : 2056

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

(Note : Both QP Codes 2055 and 2056 are to be answered within total duration of 3 hours)

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

1. Define sociology? Explain the scope and importance of sociology
2. Define social change? Explain any two theories of social change
3. Define alcoholism? Explain the Types, Cause, Effects and Solution

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

4. Write a note on Dowry System
5. Differences between primary and secondary group
6. Technological factors of social change
7. Characteristics of culture
8. Types of family

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

9. Questions method
10. Anticipatory socialization
11. Group morals
12. Social deviance
13. Tribal community

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2154_2011_1_S221

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

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

MEDICAL ELECTRONICS AND COMPUTER APPLICATIONS (OS, RS & RS2)

Q.P. CODE: 2154

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 electric shock. Describe the effects, treatment and prevention of shock
2. Explain the process of generation of action potential
3. What is program? Explain the principles of programming. What are the uses of computerization over manual system

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

4. Explain the terms frequency, amplitude and phase of sine wave
5. What is software? How do you classify a software
6. A note on magnetron
7. What is virus? How do you cure virus attack
8. Describe the laws governing radiation
9. Write a short note on networking concept of physiotherapy
10. List the uses of infra red and ultra violet ray in physiotherapy
11. Write note on wheat stone's bridge
12. Explain role of CT scanners
13. Give 5 principles of programming

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

14. What is an opto coupler
15. What is meant by inductothemy
16. What is data processing
17. Advantages of single processing
18. Give 2 advantages of inkjet printer over dot matrix printer
19. What is the difference between hardware and software
20. Define faradic current
21. How are transducer classified
22. What are the advantage of using computer network
23. What is the importance of computerized EMG

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

Time: 3 Hours **Max. Marks: 40 Marks**

Psychology

Q.P. Code : 2155

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

(Note : Both QP Codes 2155 and 2156 are to be answered within total duration of 3 hours)

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

1. Define psychology. Explain the branches of psychology.
2. What is personality? Explain the assessment of personality.

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

3. Describe the Abraham Maslow's theory of need hierarchy.
4. Explain the different types of frustration.
5. Explain the stages of creativity.
6. What is learning? Explain the factors influencing on learning.
7. Discuss the development of an attitude.

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

8. Rationalization
9. Sensation
10. Illusion
11. Super ego
12. Insight learning

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Mar 2013

Time: 3 Hours **Max. Marks: 40 Marks**

Sociology

Q.P. Code : 2156

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary
(Note : Both QP Codes 2155 and 2156 are to be answered within total duration of 3 hours)

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

1. Define sociology. Discuss its application to health care professions.
2. Define social groups. Explain the difference between primary and secondary group.

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

3. Process of socialization
4. Problems of modern family
5. Causes of population explosion
6. Problems of working women
7. Urban health problems

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

8. Opinion poll method
9. Cultural lag
10. Primary health centre
11. Tribe
12. Hindu Marriage Act of 1955

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Rajiv Gandhi University of Health Sciences

First Year BPT Degree Examination - Mar 2013

Time: 3 Hours [Max. Marks: 100]

Bio-Mechanics of Human Motion (OS, RS & RS2)

QP Code : 2157

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

LONG ESSAY (Answer any four) **4 X 10 = 40 Marks**

1. Discuss force, its representation, measurement, classification and its action on human body.
2. Define gravity? Explain its relation with line of gravity and centre of gravity with diagrammatic illustrations
3. Discuss equilibrium. Explain base of support in relation with equilibrium and rationale of using equilibrium board
4. Define gait. Discuss the kinematic analysis of gait.
5. Describe the kinetics and kinematics of the knee complex including the Screw Home Mechanism.

SHORT ESSAY (Answer any eight) **8X 5 = 40 Marks**

6. List the types of walking aids. Describe any two.
7. Classify levers. Describe any one in detail giving the human body example.
8. Give the types of movement of ribcage. Describe the mechanism for the same.
9. Write the mechanical principles of pulleys and its use in physiotherapy
10. What are the difference between a) Spurt and shunt muscles b0 tonic and phasic muscles
11. Explain the close and loose pack position
12. Explain scapulo humoral rhythm
13. Explaim lumbo pelvic rhythm
14. Describe Newton's laws with examples.
15. What are the different types of Muscle contractions? Give examples.

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

16. Define power and work
17. Stride length
18. Define moment arm
19. What is the functional position of hand
20. Classify the synovial joints
21. Explain the importance Goniometry
22. Principles of Bicycle Ergometer
23. Uses of Springs
24. Buoyancy
25. Uses of continous passive motion apparatus



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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – Aug 2013

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 medial longitudinal arch of foot.
2. Explain the shoulder joint.
3. Explain the basal ganglia.

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

4. Femoral sheath
5. Ligaments of knee joint
6. Greater omentum
7. Diaphragm
8. Pericardium
9. External features of liver
10. Supports of the uterus
11. Histology of skeletal muscle
12. Upper end of humerus
13. Mastoid process
14. Trapezius muscle
15. External oblique muscle of abdomen
16. External jugular vein
17. Middle cerebral artery

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

18. Histological diagram of large sized artery.
19. Name the arteries supplying suprarenal gland.
20. Name the deep flexors of forearm.
21. Name the parts of brain stem.
22. Name the bones of middle ear.
23. Name the intrinsic muscle groups of the tongue.
24. Name the nerve supply of extra ocular muscles.
25. Name the contents of cubital fossa.
26. *Parts of Parietal pleura*
27. Name the branches of the tibial nerve in popliteal fossa.

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2702_2013_2_S224

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Aug 2013

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. Name four ascending tracts of the spinal cord. Trace the pathway for fine touch
2. Describe in detail the properties of cardiac muscle
3. With a labelled diagram explain the neuro – muscular transmission

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

4. Describe triple response
5. Enumerate the stages of erythropoiesis and describe the factors affecting them
6. Discuss the functions of bile salts
7. Describe the respiratory changes during muscular exercise
8. Discuss briefly the chemical regulation of respiration
9. Explain the refractive errors of the eye
10. What is a synapse? Draw and label the components of the synapse
11. Discuss the physiological actions of aldosterone
12. Explain the mechanism of spermatogenesis
13. With a neat diagram explain micturition reflex
14. Enumerate the functions of skin
15. Describe the events of the different phases of menstrual cycle with their hormonal basis
16. Describe the events in second phase of deglutition
17. Explain Flexion withdrawal reflex with a diagram

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

18. Name two mechanisms by which the body tolerates cold environment
19. State starling's law of muscle contraction
20. Enumerate the functions of placental hormones
21. What is facilitatory water reabsorption
22. Define isotonic and isometric contraction in skeletal muscle
23. Draw a cystometrogram
24. Note the action of ADH on kidney
25. List the GI hormones
26. Structure of a taste bud
27. Define jaundice

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Aug 2013

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. Define Glycolysis. Enumerate the steps of glycolysis and add a note on its energetics and regulation.
2. Define β – Oxidation. Describe the steps of β – Oxidation. Give the energetics for the oxidation of palmitic acid.
3. Write on sources, RDA, functions and deficiency manifestations of Vitamin A.

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

4. Functions of Lipoproteins
5. Define isoenzymes. Discuss on any two clinically important iosenzymes.
6. Describe the regulation of blood calcium.
7. Define and explain Creatinine test and add a note on its importance.
8. Describe Micelle formation.
9. Describe the structure of collagen.
10. Role of respiration in acid base balance
11. Glycogenesis and its regulation
12. Watson & Crick model of DNA.
13. Allosteric regulation of enzyme

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

14. Essential fatty acids
15. Glutathione
16. Functions of iron
17. Give the normal values of a) Serum sodium b) Serum Potassium
18. Albinism
19. Lactose
20. What is nitrogen balance? Give one example each for positive and negative nitrogen balance.
21. Name any four special compounds derived from Glycine.
22. Give the normal values of a) Serum AST b) Serum Phosphorus
23. Mention two biotin dependent carboxylation reactions.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year BPT Degree Examination – Aug 2013

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

BIO-MECHANICS
(RS-3)

Q.P. CODE: 2704

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 kinetics and Kinematics of gait
2. Discuss the biomechanics of cervical spine
3. Discuss the biomechanics of shoulder complex and explain the dynamic stability in detail

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

4. Discuss the plantar arches
5. Write a short on tonic and phasic muscles
6. Analyse the movement of pulling
7. Explain the movements of scapulothoracic joint
8. What is base of support? Explain it in relation to mobility and stability
9. Explain the structure and function of intervertebral disc
10. Explain lumbopelvic rhythm
11. Explain young's modulus in relation to stress and strain
12. Types of muscle contraction. Give example
13. Explain Length – tension relationship

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

14. Carrying angle
15. Pivot joint with example
16. Define Dynamic friction
17. Define Double support time
18. Prime movers
19. Scoliosis
20. Hallux valgus
21. Define energy
22. Explain tibial torsion
23. Define Inertia

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63 19

2705_2013_2_S181

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Aug 2013

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 the psychology? Explain the scope of psychology?
2. What is motivation? Describe the classification of motives

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

3. Explain the role of psychology in the field of physiotherapy
4. Describe the determinants of attention.
5. What is heredity? Explain the role of heredity in human development
6. Explain the assessment of intelligence
7. Write a note on classical conditioning theory of learning.

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

8. Stress
9. What is attitude?
10. Rationalization
11. Conflict
12. Illusion

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52 20

2706_2013_2_S106

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Aug 2013

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. What are the causes of poverty and write the remedial measured
2. Explain the merits and demerits of family system in India

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

3. Health hazards of tribal community
4. Characteristics of secondary group
5. Education and social change
6. Characteristics of law
7. Write a note on unemployment

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

8. Re-socialization
9. Monogamy
10. Joint family
11. Alocentric family
12. Population explosion

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67 21

2707_2013_2_S158

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – Aug 2013

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 kinetics and kinematics of motion with relation to the shoulder joint.
2. Enumerate the various types of joints. Explain in detail each type giving examples.
3. Analyze the various types of grips and pinches. Describe the movement occurring at the joints.

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

4. Explain Newton's 1st Law of motion with an example of from human body.
5. Describe the carrying angle and explain its importance for function of elbow and forearm.
6. Explain the phases of swing phase of a gait cycle.
7. Describe the movement of stair climbing.
8. Explain the joint movement that occurs during breathing.
9. Describe the fundamental position of the knelling with the help of a diagram.
10. Explain the properties of bone tissue indicate the features that help maintain stability.
11. Describe the features of tonic and phasic muscles.
12. Define equilibrium; give the types with an example.
13. Describe the screw-home mechanism at the knee joint.
14. Explain the movements of facet joint of the vertebral column.
15. Explain passive insufficiency with examples.
16. Outline the various axis and planes of movement and give the movements that occur.
17. Explain the lever of 1st order and give an example of human movement.

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

18. Define arthrokinematics.
19. Give 2 uses of planter arches.
20. Define step length and stride length.
21. Give 2 types of equilibrium, with examples.
22. Explain good posture.
23. Where does line gravity pass through in the spine?
24. Define Hooke's law.
25. Give 2 functions of a connective tissue.
26. Explain Q angle.
27. What is a closed packed position?

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