Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2015

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. Explain the sliding filament theory of contraction. State Starlings law of force of contraction.
2. Describe the cardio-vascular and respiratory changes during exercise.
3. Name the ascending pathways. Trace the pathway for pain and fine touch.

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

4. Explain the Wallerian degeneration
5. Define Anemia. Explain the clinical classification of Anemia
6. Explain the phases of cardiac cycle taking place during ventricular systole.
7. Draw a spirogram. Define the different lung volumes and write their normal values.
8. Functions of saliva
9. Differentiate between myelinated and non-myelinated nerve fibres
10. Define immunity. Briefly describe the types of immunity
11. Draw the structure of the Juxta glomerular apparatus. Write any three functions
12. Describe the body mechanisms by which it tolerates hot environment
13. List four methods of contraception in the males and females
14. Functions of cerebellum
15. Differentiate between Isotonic and Isometric contraction
16. Action of insulin
17. Explain the mechanism of impedence matching taking place in the middle ear

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

18. Define chronaxie and rheobase
19. Define Lymph. List two functions
20. Define secondary active transport mechanism
21. Trace the visual pathway
22. Action of ADH
23. Define chloride shift
24. Structure of muscle spindle
25. Define motor unit.
26. Source of energy for muscle contraction
27. Define arterial blood pressure. Write its normal value

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2015

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 enzymes. How enzymes are classified give examples for each class
2. Describe the chemistry, sources, RDA, metabolic functions and deficiency symptoms of vitamin C (Ascorbic acid)
3. Describe aerobic Glycolysis. Add a note on the bioenergetics of the pathway

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

4. Ketogenesis
5. Urea cycle
6. Classification of proteins based on functions
7. Basal metabolic rate
8. Mucopolysaccharides
9. Fluid mosaic model of cell membrane
10. Collagen
11. Structure and functions of DNA
12. Creatinine clearance test
13. Balanced diet

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

14. Essential fatty acids functions and deficiency
15. Kwashiorkar
16. BMR
17. Active site
18. Beri – beri
19. Functions of iron
20. Metabolic acidosis
21. Name the coenzymes of (A) Thiamine (B) Pyridoxine
22. Name any four physiological importance substances produced by tyrosine
23. Structure of tRNA

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2015

Corrections

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

Q.P. CODE: 2703

Replace Question No. 16 as **Essential amino acids**

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2015

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 personality? Explain the assessment of personality.
2. What is psychology? Explain the scope of psychology.

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

3. Abraham Maslow's theory of need hierarchy
4. Distribution of intelligence
5. Attitude change
6. Trial and error of learning theory
7. Types of learning

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

8. Introspective method
9. Attention
10. Genius
11. Incidental and intentional learning
12. Illusion

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2015

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 socialization and explain in detail about its types and agencies.
2. Define family and explain its influence on individual's health, family and Nutrition.

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

3. Explain the concept of culture and health.
4. Case study
5. Importance of sociology with reference to health care professionals
6. Define rural community and its health hazards.
7. Poverty and unemployment

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

8. Write any two features of urban community.
9. Social change and deviance
10. Nuclear family
11. Alcoholism
12. Difference between psychology and social psychology

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL -2015

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 biomechanics of abduction of shoulder joint with factors contributing for its stability.
2. What are the ligaments of hip joint? Explain bilateral and unilateral stance with examples.
3. What is the functional position of hand? Add note on power grips.

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

4. Describe the structure of a vertebra. Add a note on curves in the vertebral column with its articulations and functions.
5. Compare Lumbo pelvic rhythm with Scapula humeral rhythm.
6. What is biarticular muscle? Explain their property of active in sufficiency with an example.
7. Describe the order of levers with examples.
8. Biomechanics of ankle joint
9. Movements of ribcage during breathing – add a note on muscles of breathing.
10. Explain locking and unlocking of knee joint.
11. Movement analysis – lifting
12. Describe the structure and function of intervertebral disc.
13. Define posture. Explain the kinetics of posture.
14. What is lubrication? Explain the types of lubrication of synovial joint.
15. Biomechanics of cervical spine
16. Pronation twist
17. What is gait cycle? Describe the Energy expenditure during normal gait

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

18. Agonists
19. What is thumb opposition?
20. What are the factors that affect muscle function?
21. Role of menisci at knee
22. What is the characteristic of gluteus medius gait?
23. Spondylolisthesis
24. Acetabular ante-version
25. Ligaments of ankle joint
26. Index plus minus foot
27. Annular pulleys

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – SEPTEMBER 2015

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 femoral triangle in detail.
2. Classify white matter of the brain. Describe internal capsule in detail.
3. Describe the attachments of deltoid. Name the structures under covering deltoid.

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

4. Bronchopulmonary segments
5. Axillary nerve
6. Third ventricle
7. Cubital fossa
8. Dorsalis pedis artery
9. Foetal circulation
10. Femoral nerve
11. Trachea
12. Arterial supply of heart
13. Ovarian follicle
14. Abdominal aorta
15. Extra ocular muscles and its nerve supply
16. External carotid artery
17. Supports of bladder

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

18. Name the carpal bones
19. Name the sinus of pericardium.
20. Name the attachments of coracoid process.
21. Name the branches of medial cord of brachial plexus.
22. Parts of pancreas
23. Name the hamstring muscles.
24. Parts of corpus callosum
25. Name the paranasal air sinuses
26. Skeletal muscle histology (only diagram)
27. Ligaments of wrist joint

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 reflex? Discuss the types of reflexes. Explain any five properties.
2. Explain the sliding filament theory of muscle contraction and the length-tension relationship.
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. Tabulate the factors affecting Erythropoiesis. Add a note on Anemia.
6. Physiological action of thyroid hormone
7. Pharyngeal phase of deglutition
8. Discuss the oxygen dissociation curve and its shift to the right and to the left.
9. Explain any three features of coronary circulation.
10. Enumerate the functions of skin.
11. Trace the pain pathway. State the gate theory of pain.
12. Explain the counter current mechanism taking place in the kidney.
13. Define REM and NREM sleep. Differentiate the features of REM and NREM sleep.
14. Describe the events of the different phases of menstrual cycle with their hormonal basis.
15. Outline the functions of cerebellum.
16. Explain defaecation reflex.
17. Differentiate between isotonic and isometric contraction.

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

18. Any four functions of CSF
19. Functions of ADH
20. Draw a nephron and label its parts.
21. List four methods of contraception in the females.
22. Differentiate between the rods and cones.
23. What are anti-coagulants? Give any two examples.
24. Define upper motor neuron and lower motor neuron.
25. Angiotensin II
26. Enumerate the methods of heat loss from the body.
27. Define GFR and give its normal value.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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

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

1. Define and classify carbohydrates giving suitable examples.
2. Describe the structure of a typical cell with a neat labeled diagram. Add a note on structure and functions of the various organelles.
3. Describe sources, RDA, biochemical functions and deficiency of Calcium. Add a note on its homeostasis.

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

4. Respiratory alkalosis
5. Write the steps of glycolysis.
6. Discuss water balance.
7. Phospholipids
8. Functions of Calcium
9. Classify lipoproteins. Add a note on its functions.
10. Digestion and absorption of proteins
11. Urea cycle
12. Creatinine clearance test
13. Diabetes mellitus

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

14. Difference between starch and glycogen
15. Gout
16. Name the blood buffers.
17. Dietary fibres
18. Reducing sugars
19. Pellagra
20. Calorific value of food
21. Normal serum levels of cholesterol and calcium
22. Kwashiorkar
23. Two causes of obstructive jaundice

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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. Discuss in detail various classes of lever, citing two examples for each lever in human body. Mention about mechanical advantages of each lever type.
2. Describe in detail the biomechanics of temporomandibular joint.
3. Describe in detail the tibiofemoral and patellofemoral mechanics during knee extension.

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

4. Describe in detail stair gait.
5. Compare intervertebral discs of cervical and lumbar regions. Mention its significance on movements.
6. Describe the strategies employed in maintaining balance.
7. Discuss the forces contributing to patellofemoral joint stability.
8. Discuss in short the various types of muscle contraction.
9. Write a short note on Postural control required to maintain normal posture.
10. Describe the biomechanics of ribcage movement during respiration.
11. Explain in brief mechanical advantage of second order lever citing two examples.
12. Write the importance of coracoacromial arch.
13. Describe the functional positioning of wrist joint.

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

14. Lumbosacral angle and its biomechanical implication.
15. Ulnar positive variance.
16. Coxa vara.
17. What is passive insufficiency?
18. What are the differences between pivot joint and saddle joint?
19. List the structures that restrain flexion of cervical spine.
20. Angle of inclination and torsion of humerus.
21. Name the lateral and medial rotators of hip joint.
22. Name the five kinematic variables.
23. Define the temporal variables of gait.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 psychology? Explain observation 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. Determinants of attention
4. Explain the assessment of intelligence
5. Biological motives
6. Types of reasoning
7. Explain the types of leadership

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

8. Projection
9. Super ego
10. Frustration
11. Perception
12. Illusion

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 methods of sociological investigations.
2. Explain the factors of social change.

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

3. Write a note on working women problem.
4. Culture and health
5. Problems of rural people
6. Characteristics of group
7. Functions of family

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

8. Social survey
9. Anticipatory socialization
10. Social group
11. Urban community
12. Social problems

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - SEPTEMBER 2015

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. Classify diarthrodial joint and give example of each. Describe in the features of synovial joint.
2. What is the difference between power grip and precision grip? Describe any two types of grip.
3. What are the events in stance phase of gait cycle? Analyze and write the lower extremity joint motion during stance phase.

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

4. Define active and passive insufficiency. Explain any one.
5. Describe the structure of Intervertebral disc.
6. Explain the mechanism of static stabilization of Glenohumeral joint.
7. Explain the second order of lever with examples.
8. Describe the structure and function of radioulnar joint.
9. Define open and closed kinematic chain. Explain any one with example.
10. Analyse the activity of standing to squat.
11. Describe the structure and movements of acromioclavicular joint.
12. Explain force of friction and its significance in physiotherapy.
13. Define Axis and Planes. Name the axis and plane for shoulder and ankle motions.
14. Describe locking mechanism of knee joint in weight bearing and non-weight bearing position.
15. What are the articulations in the Thoracic spine? Name the movements of the thoracic spine.
16. Explain concentric and eccentric contraction with example.
17. Analyse the forces on the hip during bilateral stance.

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

18. Name the muscles contracting during normal breathing.
19. List any two postural deviations seen in frontal plane.
20. What are the movements of 1st carpometacarpal joint?
21. Mention the uses of Pulley.
22. What is Genu Recurvatum?
23. Name the Bursa's around the knee joint.
24. Name the ligaments which provide medial-lateral stability to knee joint.
25. What is Loose Packed position of joint?
26. Define Mechanical Advantage.
27. What is Carrying Angle?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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. What is Psychology? Explain the scope of psychology?
2. What is learning? Explain operant conditioning theory?
3. What is Attention? Explain determination & types of attention.

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

4. Types of leadership
5. Distribution of intelligence
6. Psychoanalysis school of psychology
7. Type approaches of personality
8. Abraham maslow's theory of need hierarchy.

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

9. Types of emotions
10. Illusion
11. Stress
12. Ego-defense mechanism
13. Heredity

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 of Sociology.
2. Define Socialization? Add a note on Agencies of socialization.
3. What is community? Describe the Characteristics of Rural Community.

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

4. Classifications of group
5. Types and functions of the family
6. Branches of sociology
7. Factors affecting the social change.
8. Culture & health.

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

9. Case Study
10. MSW
11. Unemployment
12. Social security
13. Define Anthropology

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (Physiotherapy) Degree Examination – SEPTEMBER 2015

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. Discuss the properties of a neuron.
2. Explain the mechanics of ventilation.
3. Draw a labeled diagram of the pyramidal pathway. Enumerate their functions.

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

4. Describe menstrual cycle with hormonal basis.
5. With a labeled diagram, explain defecation reflex.
6. Define hypoxia. Discuss the types of hypoxia.
7. Explain the regulation of secretion of gastric juice.
8. Action of growth hormone

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

9. Define anemia. Name the types of anemia.
10. Any four functions of saliva
11. Define cardiac cycle. Enumerate the phases of cardiac cycle.
12. Differentiate between meiosis and mitosis.
13. Define puberty.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (Physiotherapy) Degree Examination – SEPTEMBER 2015

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

Physiology, Therapeutic Physiology and Biochemistry – Section B

Q.P. Code: 2153

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. Discuss in detail about renal function tests.
2. Define and classify lipids. Add a note on the functions of lipids.
3. Discuss the effects of thyroid hormone on metabolism. Add a note on hypothyroidism.

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

4. Biological functions of vitamin K
5. Chromatography
6. Define enzymes. Write the classification and clinical importance of enzymes.
7. Define Balanced Diet, Specific Dynamic Action and Respiratory Quotient.
8. Biologically important peptides

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

9. What are Provitamins? Give examples.
10. Golgi apparatus
11. Deficiency diseases of vitamin D
12. Respiratory acidosis
13. PEM

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 Transformer? What are its types and state its functions
2. What is data processing? Describe the types of data processing and its application in physiotherapy?
3. Describe the production of therapeutic ultrasound

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

4. What are the types of capacitor? Mention its application in physiotherapy?
5. Write a note on magnetron
6. Describe the construction and application of cathode ray oscilloscope
7. Compare and contrast semiconductors with thermionic valves
8. Describe the different transmissions of heat
9. What are the properties of the magnet?
10. Describe resistance in series and parallel
11. Describe the production of LASER
12. Describe the role of computers in physiotherapy
13. Describe in detail half wave rectification

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

14. Define the term frequency and its unit
15. Types of switches
16. Define the terms capacitance
17. Define the term Macroshock
18. Define inverse square law
19. Define Lenz's law
20. Differentiate conductors and insulators
21. Mention any two input devices
22. Define multimeter
23. Define nebuliser

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 scope of psychology.
2. What is development? Explain the characteristics of adolescence.

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

3. Explain Abraham Maslow's theory of need hierarchy.
4. What is creativity and explain the traits of creative people.
5. Trial and error learning
6. Explain psychological aspects of emotions.
7. What is personality? Explain the role of environment on personality development.

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

8. What is an illusion?
9. What is approach avoid conflict?
10. Types of attention
11. Authoritarian leadership.
12. What is identification?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEPTEMBER 2015

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 culture and discuss the role of culture in health and illness.
2. Define socialization and explain the agencies of socialization.

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

3. Social survey method
4. Types of family
5. Rural problems
6. Health consequences of alcoholism
7. Role of medical social worker

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

8. Anthropology
9. Interview method
10. Ingroup and Outgroup
11. Social change and health
12. HIV/AIDS

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – SEPTEMBER 2015

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

BIO-MECHANICS OF HUMAN MOTION
(OS, RS & RS2)

Q.P. CODE: 2157

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 biomechanics of knee complex
2. Explain the structure and function of elbow complex
3. Write the athrokinematics and osteokinematics of wrist joint
4. Enumerate various movement analysis
5. Discuss the Goniometric principle and explain the Goniometric measurement method of Glenohumeral joint

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

6. Mechanics of breathing
7. Levers
8. Principles of hydrotherapy
9. Mechanical principles of parallel bars and wall bars
10. Axillary crutch
11. Equillibrium board
12. Force of friction
13. Kinematics of gait
14. Function of sternovlavicular joint
15. Kinematics of Rib and manubrium sternum

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

16. Anatomical pulley
17. Types of motion
18. Stability
19. Scapulohumeral rhythm
20. Scaption
21. Force couple
22. Carrying angle
23. Bucket handle movement
24. Tenodesis
25. Pulley

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Rajiv Gandhi University of Health Sciences, Karnataka

First year B.Sc. (Physiotherapy) Degree Examination – SEPTEMBER 2015

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 the application of computer in medical field
2. Explain the process of generation of action potential and its propagation
3. Explain the phenomenon of electromagnetic induction along with its therapeutic uses
4. Describe the production of laser
5. Define transformer. State its functions

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

6. What is a virus? How can cure a virus attack?
7. Discuss any two types of transducers
8. Write a short note on networking concept of physiotherapy
9. Write note on wheat stone's bridge
10. Electro Magnetic spectrum
11. Explain "absolute refractory period" and relative refractory period
12. Testing of electrical stimulator
13. Enumerate different types of storage devices
14. Types of Capacitor
15. Diode valve & triode value

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

16. What are bound charges?
17. Conductors and insulators
18. Define Potential difference
19. Data recovery
20. State Lenz's law
21. Types of Nebuliser
22. What is a software
23. Give 2 advantages of inkjet printer over dot matrix printer
24. Define the term inductance
25. Define latent heat

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