

**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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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 erythropoiesis
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: 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: 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 proteins with suitable examples.
2. Describe – sources, RDA, biochemical functions and deficiency of Vitamin D.
3. Describe aminoacid classification and functions. Add a note on biological important peptides.

### SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. Glucose tolerance test
5. Phospholipids
6. Transport mechanism of cell membrane
7. Difference between RNA and DNA
8. Digestion and absorption of carbohydrates
9. Explain contractile proteins.
10. Classification of hormones
11. Respiratory acidosis
12. Types of jaundice, add a note on hemolytic jaundice.
13. Structure and functions of tRNA

### SHORT ANSWERS

10 x 2 = 20 Marks

14. Co-enzymes form of Vitamin B6 and Folic acid
15. Epimers
16. Beri-beri
17. Basal metabolic rate
18. Active site of enzyme
19. Gout
20. Essential amino acids
21. Bad cholesterol
22. Name two glycogen storage disorders.
23. Hormones regulating blood glucose

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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 Temporomandibular 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

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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: 80 Marks

## BIOCHEMISTRY (RS-5)

Q.P. CODE: 2733

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

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### LONG ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. Classify carbohydrates with examples. write biological importance of any two.
2. Describe the chemistry, source, absorption, daily requirements, deficiency disorders and biochemical role of vitamin A.
3. Describe in detail the steps of Urea Cycle. Write the causes of Uremia.

### SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. What are mucopolysaccharides? Name the functions and composition of four mucopolysaccharides.
5. Structure and functions of DNA
6. Digestion and absorption of lipids. Mention the two causes of fatty stools
7. Describe protein structure.
8. Explain the functions and deficiency manifestation of Thiamine.
9. Gluconeogenesis
10. Biologically important compounds derived from cholesterol
11. Blood buffers and their role in acid base balance
12. Formation and function of collagen
13. Functions of Iron

### SHORT ANSWERS

10 x 2 = 20 Marks

14. Define Respiratory Quotient (RQ). Write the RQ values of carbohydrates, lipid and proteins.
15. Protein energy malnutrition
16. Functions of plasma membrane
17. Renal threshold for glucose and its significance
18. Sodium potassium pump
19. Define metabolic alkalosis and mention two causes
20. Mention the functions of cyclic AMP.
21. Normal blood Urea level. Mention two causes of Uremia
22. Alkaptonuria
23. Carnitine cycle

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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

**Psychology (RS-5)**

**Q.P. Code: 2735**

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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 Maslow'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 = 10 Marks**

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: 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: 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 Mark**

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 Mark**

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 = 10Mark**

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

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