Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 16-Jul-2021

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

HUMAN ANATOMY (RS5)
Q.P. CODE: 2731
(QP contains two pages)

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

LONG ESSAYS (Second Question Choice)   **2 x 10 = 20 Marks**

1. Describe the Brachial Plexus under the following headings:
   a) Origin and Formation
   b) Branches with root values
   c) Applied anatomy
2. Describe the anatomy of Uterus under the following headings:
   a) Location and Position
   b) Parts and Relations
   c) Supports of Uterus
   d) Applied anatomy
      OR
   Describe the anatomy of Blood supply to Brain with a note on applied anatomy.

SHORT ESSAYS (Question No 3 & 12 choice)   **10 x 5 = 50 Marks**

3. Popliteal Fossa-Boundaries and Contents.
      OR
   Cerebellum.
4. Sciatic nerve.
5. Ligaments of Spleen.
6. Right atrium.
7. Bronchopulmonary segments.
8. Biceps Brachii.
9. Radial artery.
10. Relations of Liver.
11. Bed of stomach
12. Microscopy of Cartilage.
      OR
   Sternal angle.

SHORT ANSWERS   **10 x 3 = 30 Marks**

13. Mention any four branches of external carotid artery.
14. Draw a neat labelled diagram of multipolar neuron.
15. Name the supports of Uterus.
16. Mention the origin, insertion, nerve supply and action of Tibialis anterior.
17. Mention the three characteristic features of Large Intestine.

18. Upper end of humerus.
19. Draw a neat labelled diagram of microscopy of TS Bone.
20. CSF.
21. Enumerate the contents of Posterior Mediastinum.
22. Carpal Tunnel Syndrome.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 19-Jul-2021

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

HUMAN PHYSIOLOGY (RS5)
Q.P. CODE: 2732

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

LONG ESSAYS (Second Question Choice)   **2 x 10 = 20 Marks**

1. Define cardiac cycle. Explain the different phases of cardiac cycle with their duration.

2. Explain the neural regulation of respiration. Add a note on periodic breathing.
   OR
   Trace the pathway for pain sensation. Explain gate theory of pain. Describe referred pain.

SHORT ESSAYS (Question No 3 & 12 choice)   **10 x 5 = 50 Marks**

3. Tabulate the difference between the I and II heart sounds.
   OR
   What is flexion withdrawal reflex? Explain its mechanism.
4. Explain the mechanism of spermatogenesis.

5. Briefly discuss the functions of middle ear.

6. Enumerate the functions of skin.

7. Outline the mechanism of intrinsic pathway of coagulation. What is Haemophilia?

8. With the help of a diagram explain the mechanism of micturition reflex.

9. Draw a synapse. Describe the synaptic transmission taking place across the synapse.

10. Define GFR. Explain any four factors regulating GFR.

11. Functions of hypothalamus.

12. Draw the oxygen dissociation curve.
    OR
    Explain the phases of menstrual cycle.

SHORT ANSWERS   **10 x 3 = 30 Marks**

13. Functions of Golgi apparatus, endoplasmic reticulum

14. Define isometric and isotonic contraction.

15. Enumerate the contraceptive methods in females.

16. Functions of placental hormones

17. Define PCV (Haematocrit). State its significance.

18. List any four Neuro-transmitters.

19. Write any two differences between fast and slow muscle.

20. Give the normal value of (a) RBC count (b) WBC count (c) Haemoglobin concentration (d) Platelet count.

21. Define resting membrane potential.

22. What is Babinski's sign positive?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 23-Jul-2021

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 One)   **1 x 10 = 10 Marks**

1. Describe the sources, requirement, functions and deficiency manifestations of calcium. Add a note on the hormones that maintain its homeostasis

2. Describe the reactions of Kreb's cycle and add a note on its energetic

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

3.   Dietary fibres

4.   Nutritional importance of proteins

5.   Buffer systems of the body to maintain the pH of the blood.

6.   Competitive inhibition

7.   NIDDM

8.   BMR

9.   Role of Renin-Angiotensin system in maintaining electrolyte balance

10. Ketogenesis

11. Structure of DNA

12. Lipoproteins

SHORT ANSWERS   **10 x 3 = 30 Marks**

13. Muscle proteins

14. Scurvy

15. Collagen

16. Isoenzymes

17. Lactose

18. Bile salts

19. Essential aminoacids

20. Deficiency of Vitamin A

21. BMR

22. Mitochondria

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Rajiv Gandhi University of Health Sciences, Karnataka
I Year B.P.T. Degree Examination – 23-Jul-2021

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

BIOCHEMISTRY (RS5)
Q.P. CODE: 2733

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

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

1. Write the sources, RDA, formation of active from of Vitamin D, its biochemical functions and deficiency manifestations.
2. Define Glycolysis. Enumerate the steps of Glycolysis. Add a note on its regulation and energetics.

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

3. Fluid mosaic model of cell membrane.
4. Balance diet.
5. Structure and function of collagen.
6. Biochemical functions of calcium.
7. Basal Metabolic Rate (BMR).
8. Describe the synthesis of ketone bodies and mention two causes of ketosis.
9. Structure and function of DNA.
10. Classification of Enzymes with suitable examples.
11. Mucopolysaccharides.
12. Denaturation of proteins.

SHORT ANSWERS   10 x 3 = 30 Marks

13. Mention any four compounds synthesized from Glycine.
14. Coenzyme forms of Thiamine and Pyridoxine.
15. Phenyl Ketonuria.
16. Write the normal values of serum total cholesterol and Blood Urea.
17. Van den Bergh reaction.
18. Essential amino acids.
19. Roll of bile salts in lipid digestion.
20. Features of Rickets.
21. Role of ADH in the regulation of water balance.
22. Calorific value of Carbohydrate and Proteins.

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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 (Second Question choice) **2 x 10 = 20 Marks**

1. Movement analysis of throwing a ball.
2. Define gait and write the components of gait cycle.
   Or
   Explain different type of power and precision grips with muscle action

SHORT ESSAYS (Question No.3 & 12 choice) **10 x 5 = 50 Marks**

3. Describe biomechanics of respiration.
   Or
   Define spurt and shunt muscles with an examples.
4. Explain arches of foot and mention the deformities.
5. Extensor hood mechanism of hand.
6. Describe supination and pronation twist.
7. Define stress and strain? Explain he load deformation curve.
8. Explain role of intervertebral disc.
9. Define role of patella in knee joint.
10. Explain Newton's laws of motion with an example.
11. What is lever? Explain various type of levers.
12. Write in detail scapula humeral rhythm.
    Or
    Explain screw home mechanism of knee joint.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Define cadence.
14. Define plasticity.
15. Define COG
16. Define Q angle.
17. What is angle of pull and its importance?
18. Ataxic Gait Describe in short.
19. Define double support time.
20. What is patella Alta.
21. Define carrying angle.
22. What is spring ligament?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - 28-Jul-2021

Time: 3 Hours   Max. Marks: 40 Marks

PSYCHOLOGY (RS5)
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 psychology. Explain the role of heredity and environment in physical and psychological development of an individual.
2. Define emotion. Explain the theories of emotion.

SHORT ESSAYS (Answer any Three)   **3 x 5 = 15 Marks**

3. Importance of psychology in physiotherapy

4. Explain the principles of organization of perception.

5. Types of conflicts

6. Explain operant theory of learning.

SHORT ANSWERS   **5 x 3 = 15 Marks**

7. Projection

8. Concept of IQ

9. Problem solving

10. Different types of Leaders

11. Define personality

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 28-Jul-2021

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. Discuss the relevance of Sociology to Physiotherapy.
2. Explain the types and functions of Family.

SHORT ESSAYS (Answer any Three)   **3 x 5 = 15 Marks**

3. Case study method.
4. Features of Urban Community.
5. Problems of Working women.
6. Types of Socialization.

SHORT ANSWERS   **5 x 3 = 15 Marks**

7. Causes for juvenile delinquency.
8. Filocentric Family.
9. Medical Social Work.
10. Social Heterogeneity.
11. Community development programme in India.

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