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Rajiv Gandhi University of Health Sciences

First Year B.P.T Degree Examination – May 2007

me: 3 Hours] [Max. Marks: 80]

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

QP Code: 2154

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

G ESSAY (Answer any TWO) **2 X 10 = 20 Marks**

What is a program? Explain the principles of programming. What are the uses of computerization over manual system?

Explain the basic anatomy of computer. How can you classify computers?

State Ohm's law. Explain the combinations of resistances in series and in parallel

RT ESSAY (Answer any EIGHT) **8 X 5 = 40 Marks**

What is secondary memory? Mention different types of storage devices used

Write a note on safety devices

What is importance of computers in the field of education?

Using a neat labeled diagram, describe the working of an electric traction unit

Explain the generation of an action potential

What are electric stimulators? Explain briefly

What is an input device? Describe the different type of input devices

List the precautions to be taken while treating with low frequency currents

Write a short note on networking concept of P.C.

Describe the laws governing radiation

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

What is neuro-muscular junction?

Define nerve conduction velocity

Differentiate between 8 bit and 16 bit microprocessors

What is biofeedback?

Define the term Faradic Current

State Ohm's law

What are bound charges?

Define impulse

What is the importance of computerized E.M.G.

Write a note on super computers

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Rajiv Gandhi University of Health Sciences, Karnataka

First Year B.Sc. (Physiotherapy)
Degree Examination – May 2007

Time: Three Hours Max. Marks: 100 Marks

ANATOMY
(Old Scheme)

QP Code: 2151

Your answers should be specific to the Questions asked.
Draw neat labeled diagrams whenever necessary.

LONG ESSAYS (Answer any FOUR) **4 X 10 = 40 MARKS**

1. Enumerate the muscles of flexor compartment of forearm.
2. Describe the attachments, nerve supply and actions of any one of them
3. Describe the boundaries and contents of popliteal fossa.
4. Describe the ligaments, movements and muscles responsible for the movements and applied anatomy of ankle joint.
5. Describe the origin, termination, relations, branches and applied anatomy of axillary artery.

SHORT ESSAYS **8 X 5 = 40 MARKS**

6. Parotid duct.
7. Lateral pterygoid muscle.
8. Blood supply to Thyroid gland.
9. Draw & Label Microscopic picture of elastic artery.
10. Coracoid process of scapula.
11. Musculocutaneus nerve of arm.
12. Pancreas.
13. Upper end of Tibia.

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

14. Enumerate the muscles of mastication.
15. Mention FOUR tributaries of femoral vein.
16. Name the muscles supplied by Obturator nerve.
17. Name the sensory nerves supplying the dorsum of foot.
18. Draw and label cross section of spinal cord.
19. Name the venous sinuses present in falx cerebri.
20. Name any FOUR endocrine glands in the body.
21. Define Neuron.
22. Enumerate different types of epiphysis.
23. Why fourth layer of scalp is called dangerous area.

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Rajiv Gandhi University of Health Sciences

Final Year B.P.T. Degree Examination – May 2007

me: 3 Hours] [Max. Marks: 100

PHYSIOTHERAPY IN NEUROLOGY & NEUROSURGERY
(OS, RS & RS2)

QP Code: 2171

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

G ESSAY (Answer any FOUR) 4 X 10 = 40 Marks

Classify head injuries. Discuss the management of an unconscious patient

What is leprous neuritis? Discuss the assessment and management of a 55 year old male with involvement of median and ulnar nerves in his right upper extremity at the level of elbow

Discuss the assessment and management of a patient with cerebellar ataxia

Define sciatica. List the causes for sciatica and discuss the management of a patient with sciatica

Discuss the assessment and management of a 36 year old male spastic paraplegic patient with injury at the level of T5 vertebra

RT ESSAY (Answer any EIGHT) 8 X 5 = 40 Marks

Carpal tunnel syndrome

Complications of Duchene's muscular dystrophy

Autonomous bladder

Outline the principles of Bobath's approach

Write a note on hemiplegic shoulder

Write a note on management of alcoholic neuropathy

Write a note on Bell's palsy

Clinical features of Frederick's ataxia

Management of Erb's palsy

Importance of early intervention

RT ANSWERS 10 X 2 = 20 Marks

List for differences between UMN and LMN lesions

Give two tests for diagnosing meningitis

What is the importance of SDC?

What is shoulder hand syndrome?

Define ataxia

List the clinical lectures of Athetoid CP

What is high steppage gait?

List two techniques of managing rigidity

List signs and symptoms of raised intra cranial pressure

What is saltatory conduction?

Rajiv Gandhi University of Health Sciences

First Year B.Sc. (Physiotherapy) Degree Examination – May 2007

[Time: 3 Hours] [Max. Marks: 100]

PHYSIOLOGY, THERAPEUTIC PHYSIOLOGY AND BIOCHEMISTRY
(OS, RS & RS2)

Your answer shall be specific to question asked. Draw neat and labelled diagrams wherever necessary.

Use separate answer books for section A and section B.

QP Code: 2152 - Section A [50 Marks]

LONG ESSAY (Answer any TWO) — **2 x 10 = 20 Marks**

1. Describe the clinical features of cerebellar lesion, along with the functions of different physiological divisions of it.
2. Describe various components of a cardiac cycle along with the changes in movement of blood through heart.
3. Describe neural and chemical control of respiration

SHORT ESSAY (Answer any FOUR) — **4 x 5 = 20 Marks**

4. Given an account of functions of bile salts.
5. Describe cardiovascular changes during moderate exercise.
6. What are the functions served by placenta
7. Draw & Label fine touch pathway.
8. Draw and label different components of an action potential

SHORT ANSWERS — **5 x 2 = 10 Marks**

9. What is saltatory conduction in nerves?
10. Define systolic and diastolic blood pressures.
11. List any four hormones which increase the blood sugar levels
12. Define dead levels
13. List any four ascending and descending tracts in spinal cord.

QP Code: 2153 - Section B [50 Marks]

Use separate answer book

LONG ESSAY (Answer any TWO) — **2 x 10 = 20 Marks**

1. What are carbohydrates? Classify them giving suitable examples. Add a note on mutarotation?
2. Describe sources, physiological functions and deficiency manifestations of vitamin A?
3. Give a detailed account of renal function tests

SHORT ESSAY (Answer any FOUR) — **4 x 5 = 20 Marks**

4. Mucopolysaccharides.
5. Sources, functions and deficiency symptoms of vitamin D
6. Chromatography and its applications.
7. Properties of enzymes.
8. Renal function tests.

SHORT ANSWERS — **5 x 2 = 10 Marks**

9. Name two essential fatty acids and write their importance.
10. Biological value of proteins.
11. Night blindness
12. Two important functions of insulin
13. Pellagra.

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First Year B.P.T Degree Examination – May 2007

Time: 3 Hours] [Max. Marks: 80]

PSYCHOLOGY & SOCIOLOGY
(OS, RS & RS2)

Your answer shall be specific to question asked. Draw neat and labelled diagrams wherever necessary.
Use separate answer books for section A and section B.

QP Code: 2155 - Section A - PSYCHOLOGY [40 Marks]

ONG ESSAY (Answer any ONE) **1 x 10 = 10 Marks**

1. Define personality. Explain the projective methods to assess personality
2. Define learning. Explain classical conditioning with phenomenon

HORT ESSAY (Answer any FOUR) **4 x 5 = 20 Marks**

1. Explain defense mechanism
2. Explain creative thinking
3. Type of leadership and explain the traits of a leader
4. Explain social motives
5. Explain the formation and changes of attitude

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

1. Attitudes
2. Ego
3. Concepts
4. Conflicts
5. Frustration

QP Code: 2156 - Section B - SOCIOLOGY [40 Marks]
Use separate answer book

NG ESSAY (Answer any ONE) **1 x 10 = 10 Marks**

1. Define sociology. Explain its scope
2. Explain the measures taken for the prevention of overpopulation in India

RT ESSAY (Answer any FOUR) **4 x 5 = 20 Marks**

1. Importance of socialization in the society
2. Functions of primary group in the society
3. Problems of Indian rural community
4. Features of secondary group
5. Problems of working women

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

1. Tribe
2. Agricultural unemployment
3. Polygamy
4. Matriarchal family
5. Define health

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Rajiv Gandhi University of Health Sciences

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First Year B.P.T. Degree Examination – May 2007

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. Explain different types of power and precision grips with muscle action and joint position.
2. Explain different stages of sitting to standing and lying supine to sitting at the edge of the bed.
3. Why cane is given to the contralateral side of injury for support? Compare when the care is given to the ipsilateral side.
4. Discuss the structure and function of arches of foot.
5. Define gait and gait cycle with its phases. Discuss different gait determinants.

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

6. Define lever. Discuss its applications in physiotherapy.
7. What is base of Support? How is it related with mobility and stability?
8. What is muscle contraction? Classify the same.
9. Explain extensor mechanism of hand.
10. What are pulleys? Discuss different types of pulleys.
11. What is Hooke's law? Discuss the application of kinetic & potential energy in a spring.
12. Define active insufficiency. Explain in detail with appropriate examples.
13. Describe role of pateila in knee joint.
14. Define walking aids. Give the measurement methods of crutches of canes
15. Define equilibrium. Classify the same with proper examples.

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

16. Define cadence.
17. Define Elasticity.
18. Define Axis and Plane.
19. Define torque.
20. Define dynamic friction.
21. Define center of gravity.
22. Define Double support time.
23. Write two properties of force.
24. Discuss about equilibrium board.
25. Newton's 1st Law.

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