# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2014

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

## Pathology

## Q.P. Code: 2059

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

**(Note : Both QP Codes 2059 and 2060 are to be answered within total duration of 3 hours)**

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

1. Define atherosclerosis. Discuss aetiopathogenesis and fate of thrombus.
2. Define inflammation. Discuss vascular and cellular events in acute inflammation

**SHORT ESSAYS (Answer any Six)** **6 x 5 = 30 Marks**

3. Myocardial infarction
4. Chemical mediators of inflammation
5. Ghons complex
6. Cholecystitis
7. Atrophy
8. Causes of edema
9. Cellular ageing

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

10. Volkmann's ischemic contracture
11. Neuritis
12. Exudates
13. Jaundice
14. Rickets.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2014

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

## Microbiology

## Q.P. Code : 2060

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

**(Note : Both QP Codes 2059 and 2060 are to be answered within total duration of 3 hours)**

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

1. Enumerate viruses causing hepatitis. Describe in detail pathogenesis, laboratory diagnosis and immunoprophylaxis of Hepatitis B infection
2. Define and classify sterilization and write a note on autoclave

**SHORT ESSAYS (Answer any Six)** **6 x 5 = 30 Marks**

3. Robert Koch
4. Flagella
5. Bacterial meningitis
6. Laboratory diagnosis of Typhoid fever
7. Acquired immunity
8. Antbiotic sensitivity testing
9. Candidiasis

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

10. DPT
11. Mention four bacteria causing urinary tract infections
12. Mention two opportunistic infections in HIV infected patients
13. Name two common bacteria causing wound infection
14. Name two non-suppurative complication by group A Streptococcus

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2014

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

## PHARMACOLOGY
(RS & RS2)

## Q.P. CODE: 2158

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 glucocorticoids. Write the therapeutic uses and adverse effects of glucocorticoids.
2. Classify skeletal muscle relaxants. Write the mechanism of action and therapeutic uses of succinyl choline.
3. Classify diurectics. Write the mechanism of action, therapeutic uses and adverse effects of furosemide.

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

4. Intramuscular route of administration of drugs
5. Nasal decongestants
6. Atropine substitutes
7. Enalapril
8. Selective serotonin reuptake reuptake inhibitors
9. Carbamazepine
10. Insulin preparations
11. Oral polio vaccine
12. Therapeutic uses and contraindications of aspirin
13. Rifampicin.

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

14. What is enzyme inhibition? Enlist two enzyme inhibitors.
15. Mention two drugs, which cause ototoxicity.
16. Mention two antiretroviral agents.
17. Mention the antidote for Paracetamol toxicity its rationale.
18. Mention two immunosuppressants.
19. Mention two drugs used in acute bronchial asthma.
20. Mention four uses of lignocaine.
21. What is teratogenicity? Write two examples.
22. Mention two anticancer agents.
23. Mention two topical antifungal agents.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – April 2014

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

## Pathology

## Q.P. Code : 2159

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

**(Note : Both QP Codes 2159 and 2160 are to be answered within total duration of 3 hours)**

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

1. Describe etiology & pathogensis of different types of oedema.
2. Define Neoplasia. Write a note on differences between malignant and benign tumours.

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

3. Iron deficiency anemia
4. Multiple myeloma
5. Atherosclerosis
6. Hepatitis
7. Morphology of reversible cell injury

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

8. Virchow's triad
9. Fallot's tetralogy
10. Name 2 important features of Nephrotic syndrome
11. Agranulocytosis
12. Name 4 hemoparasites.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – April 2014

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

## Microbiology

## Q.P. Code: 2160

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

**(Note : Both QP Codes 2159 and 2160 are to be answered within total duration of 3 hours)**

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

1. Classify Bacteria based on morphology. Give a detailed account of Bacterial motility.
2. Enumerate the organism causing sexually transmitted diseases. Give a detailed account of HIV.

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

3. Non-specific immunity
4. Describe the various sources of infections.
5. Diphtheria
6. Vaccines
7. Poliomyelitis

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

8. Gram's staining
9. Name any four disinfectants.
10. Name any four organisms causing enteric infections
11. Type IV hypersensitivity
12. Name any four viruses causing Hepatitis.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2014

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

## THERAPEUTICS - (OS, RS & RS-2)

## Q.P. CODE: 2161

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 evaluation methods of hand function & exercise training to improve hand function
2. Describe in detail indications & contraindications for postural drainage and describe the position of anterior segment of right lower lobe
3. Define gait. List out the different gait deviations, describe any one in detail

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

4. Explain the technique of strengthening of hamstrings from grade 2 to grade 5
5. Coughing & huffing
6. What is PRE? Describe DeLorme's technique
7. Types of breathing exercises
8. Pre – crutch training
9. Indications for joint mobilization & effects of accessory movements on a joint
10. Aerobic exercises – effects & uses
11. Merits & demerits of suspension therapy
12. Muscle work in squatting
13. Describe the technique of stretching TFL tightness
14. Co – ordination exercises
15. Explain the technique of measuring limb length & girth
16. Explain the contract relax & hold relax techniques of PNF
17. Diaphragmatic breathing exercise

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

18. Power grip
19. Name 2 merits & demerits of hydrotherapy
20. Stretching technique for Quadriceps muscle
21. Differentiate between contracture & tightness
22. Mention any 2 uses of parallel bar
23. Name 2 relaxation techniques
24. Waddling gait
25. Name 2 limitations of goniometry
26. Name 2 uses of overhead pulleys
27. What are active & inactive postures

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# Rajiv Gandhi University of Health Sciences, Karnataka

II year B.P.T Degree Examination – April-2014

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

## ELECTROTHERAPY (OS, RS & RS2)

## Q.P. CODE: 2162

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 in detail the physics, principle, production and technique of application of interferential currents
2. Describe the production and physiological effects of Short-Wave Diathermy
3. Enumerate the physiological effects of cold and explain the technique of application of Cryotherapy

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

4. What is High Voltage Pulsed Galvanic Current? Give its therapeutic effects
5. Explain the treatment of Hyperhydrosis
6. Discuss the merits and demerits of different types of electrodes
7. Enlist the indication and contraindications of TENS (Transcutaneous Electrical Nerve Stimulation) application
8. Describe the mechanical effects of ultrasound
9. Give in brief the physiological effects of LASER
10. Explain galvanic faradic test
11. Give the techniques of Faradic footbath
12. Compare and contrast the superficial and deep heating modalities
13. Describe the dangers associated with Infra-Red therapy
14. What is photo sensitization? Explain in brief
15. Explain Electrophoresis
16. What is Action Potential? Give the mechanism of propagation of Action Potential
17. Describe the mechanism of current flow in tissues

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

18. What is motor unit?
19. Give 2 uses of Electromyography
20. Define Russian Current
21. What is spatial and temporal coherence?
22. What is test dose strap?
23. Define acoustic impedance
24. What is Melzack and Wall "Pain Gate" theory?
25. What is called dip-wrap method?
26. Define Phonophoresis
27. What is Pulsed Electromagnetic Energy?

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - April 2014

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

## Pathology

## Q.P. Code : 2708

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

**(Note : Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)**

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

1. Define thrombus, discuss aetiopathogenesis and fate of thrombus.
2. Define anaemia, classify anaemmias and write laboratory diagnosis of Iron deficiency anaemia.

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

3. Pathological calcification.
4. Classification of Leprosy.
5. Infarction.
6. Gall stones.
7. Myxedema.

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

8. Eosinophilia.
9. Types of cirrhosis.
10. Mention four complications of Diabetes Mellitus.
11. Mention types of Hypersensitivity reactions.
12. Atrophy.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - April 2014

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

## Microbiology

## Q.P. Code : 2709

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

**(Note : Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)**

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

1. Define and classify hypersensitivity reactions. Discuss type-1 hypersensitivity.
2. Define Pyrexia of unknown origin. Enumerate the organisms causing it. Discuss the laboratory diagnosis of typhoid fever.

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

3. Prophylaxis against tetanus.
4. ELISA.
5. Antimicrobial susceptibility testing.
6. Gonorrhoea.
7. Cryptococcus neoformans.

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

8. Define adjuvant and give two examples.
9. Name four bacteria causing urinary tract infections.
10. Interferons.
11. Quelling reaction.
12. Mention two differences between endotoxin and exotoxin.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2014

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

## PHARMACOLOGY

## (RS - 3 & RS – 4)

## Q.P. CODE: 2710

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 Non-Steroidal anti-inflammatory drugs. Write the mechanism of action, adverse effects and therapeutic uses of aspirin.
2. Classify beta-blockers. Write the therapeutic uses and adverse of beta-blockers.
3. Classify anticoagulants. Write the mechanism of action, therapeutic uses and adverse effects of warfarin.

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

4. Transdermal patches
5. Osmotic diuretics
6. Nifedipine
7. Tricyclic antidepressants
8. Carbamazepine
9. Metformin
10. Drug induced parkinsonism.
11. Dopamine
12. Statins
13. Antidote for Organophosphorus poisoning - Explain its mechanism.

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

14. What is enzyme induction? Enlist two enzyme inducers.
15. Mention two drugs with high plasma protein binding capacity.
16. Mention the antidote for heparin toxicity with its rationale.
17. Mention two drugs used in the treatment of Systemic Lupus Erythematosus.
18. Mention four drugs used in H. Pylori induced peptic ulcer.
19. Mention two uses and two adverse effects of digoxin.
20. Mention two drugs used in acute bronchial asthma.
21. Mention four uses of corticosteroids.
22. What is teratogenicity? Write two examples.
23. What is malignant hyperthermia? Mention one drug which causes it.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - April 2014

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

## EXERCISE THERAPY

(RS – 3 & RS - 4)

## Q.P. CODE: 2711

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 Proprioceptive Neuromuscular facilitation.
2. Describe the physiology of balance and the components of balance.
3. Explain relaxation and write about Jacobson's relaxation.

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

4. Manual muscle testing for deltoid muscle
5. Tests for sensation
6. Classification of passive movements
7. Write about open chain and closed chain exercise.
8. Technique of suspension therapy for knee flexion and extension
9. Use of Frenkles exercise and its progression
10. Merits and demerits of Hydrotherapy
11. Write about Mat exercises.
12. Indications and contraindications of joint mobilization
13. Principles and technique of Free exercises
14. Evaluation of aerobic capacity
15. Technique of Goniometric measurement for Ankle Joint
16. Write in brief about concentric and eccentric exercise with examples.
17. Write in brief about the angle of pelvic inclination.

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

18. Speed Test
19. Brief Resisted Isometric Exercise
20. Petrissage
21. Gutter Crutch
22. Define equilibrium.
23. SAID Principle
24. Disadvantages of group therapy
25. Apparent Limb length
26. Active and Inactive posture
27. Two tests for inco-ordination.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April-2014

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

## ELECTROTHERAPY

## (RS-3 & RS-4)

## Q.P. CODE: 2712

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 Infra Red generators, Explain the production and effects of various types.
2. Describe the production of shortwave diathermy and explain its various effects.
3. Define faradic current. Explain the physiological and therapeutic effect faradic current.

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

4. Nerve conduction velocity.
5. Therapeutic uses of whirl pool bath.
6. Explain various method of application of Cryotherapy.
7. Indication and contraindication for microwave diathermy.
8. Various parameter of dosage in ultrasound.
9. Physiological and therapeutic effects of Russian current.
10. Define electricity and its types.
11. Dangers and precaution for shortwave diathermy.
12. Explain contrast bath and its uses.
13. Physiological effects of high voltage pulsed galvanic stimulation.
14. Explain the procedure and interpretation of SD Curve test.
15. Fluidotherapy.
16. Define phonophoresis and method of application.
17. Define shock give an account of prevention.

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

18. Define Joule's law.
19. What is salutatory conduction?
20. Define Rheobase.
21. Define inverse square law.
22. Beat frequency.
23. Drugs used for iontophosesis.
24. Define motor unit.
25. Skin impedance.
26. Define Cavitations.
27. Define collimation.

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13

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2014

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

## RESEARCH METHODOLOGY & BIOSTATISTICS

## (RS-3 & RS-4)

## Q.P. CODE: 2713

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. Enumerate the problems encountered by researchers in India.
2. Define mean, median and mode. Discuss the merits and demerits of mean, median and mode.
3. What is a test of hypothesis? Explain the need for tests of hypothesis in physiotherapy.

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

4. What are the features of a good research design?
5. What is stratified random sampling technique? Explain the procedure of selection of samples using stratified random sampling.
6. Define coefficient of variation. Explain the circumstances under which this is used as a measure of dispersion.
7. What is normal distribution? Mention its important properties.
8. Describe briefly the different methods of data collection.
9. Explain the role of computers in Physiotherapy research.
10. Briefly explain the basic principles of experimental designs.
11. With the help of a suitable illustration describe how pie diagram can be drawn for the discrete data.
12. Explain the techniques of developing measurement tools.
13. What are the under lying assumptions of one-way analysis of variance. Explain briefly under what circumstances ANOVA is applied in data analysis.

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

14. Distinguish between inclusive and exclusive method of class intervals in frequency distribution.
15. Distinguish between standard deviation and standard error.
16. What is sampling frame?
17. Distinguish between qualitative and quantitative variables. Give one example to each.
18. Define level of significance and confidence level.
19. Define the probability of an event.
20. What is target population? Give an example.
21. What is randomization?
22. What is the necessity of defining the research problem?
23. What is sampling distribution?

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - September 2014

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

## Pathology

## Q.P. Code: 2708

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

**(Note: Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)**

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

1. Define and classify neoplasia. Discuss the differences between benign and malignant tumour.
2. Define anaemia, classify anaemias and write laboratory diagnosis of Iron deficiency anaemia.

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

3. Phagocytosis
4. Dystrophic calcification
5. Infarction
6. Gall stones
7. Thrombosis

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

8. Tetralogy of fallot
9. Granuloma
10. Mention four complications of Diabetes Mellitus.
11. Lobar Pneumonia
12. Hypertrophy

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - September 2014

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

## Microbiology

## Q.P. Code : 2709

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

**(Note : Both QP Codes 2708 and 2709 are to be answered within total duration of 3 hours)**

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

1. Classify hypersensitivity. Describe anaphylaxis.
2. Write in detail about laboratory diagnosis of enteric fever add a note on its prophylaxis.

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

3. Normal flora of human body
4. Hot air oven
5. Tetanus
6. Laboratory diagnosis of Urinary Tract Infection
7. Cell culture

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

8. Bacterial Capsule
9. Name four opportunistic infections in AIDS.
10. Name four antifungal agents.)
11. Black water fever
12. Enriched Media

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – September 2014

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

## PHARMACOLOGY

(RS - 3 & RS – 4)

## Q.P. CODE: 2710

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 analgesics. Write mechanism of action, uses and adverse effects of morphine.
2. Enumerate drugs for congestive cardiac failure. Describe the actions, uses and adverse effects of glycosides.
3. Enumerate oral anticiabetic. Write the mode of action and adverse effects of any two of them.

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

4. Write about therapeutic uses of aspirin
5. Nifedipine
6. Drug dependence
7. L-dopa
8. Bronchodilators
9. Write short note on antidepressants
10. Classify the drugs used in peptic ulcer
11. Lignocaine
12. Rifampicin
13. Sources of drugs

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

14. Define pharmacodynamics
15. Write four uses ACE inhibitor
16. Adverse effects of Nitrates
17. Mention four uses of adrenaline
18. Name four uses of gentamicin
19. Give the therapeutic uses of neostigmine
20. Mention the drug used in spasticity
21. List anticholinesterases
22. Mention four uses of vitamin D
23. Anabolic steroids

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – September 2014

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

## EXERCISE THERAPY

(RS – 3 & RS - 4)

## Q.P. CODE: 2711

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. Write an essay on Aerobic exercises
2. Define Anthropometry. Explain principles, techniques uses & limitations of Anthropometric measurements
3. What are the principles & grades of mobilization? Explain the techniques of mobilization for shoulder joint

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

4. Explain the limb length measurement in detail
5. Techniques of massage manipulation
6. Write a note on Mulligan technique of joint mobilization
7. What are the principles & techniques of Hydrotherapy
8. Tests of sensation
9. Define inco-ordination, what are the non-equilibrium tests of co-ordination
10. Write a note on pulmonary Function tests
11. Explain the technique of strengthening of elbow flexors from grade 1 to grade 3
12. Dynamic power test
13. Write a note on Mitchel's technique of relaxation
14. Principles & benefits of Asanas
15. Advantages & disadvantages of group exercises
16. Functional re-education
17. Explain the principles of goniometry & it's technique of measurement

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

18. Mention any 2 derived positions from sitting
19. Define 10 RM
20. Define work & endurance
21. Differentiate between spasticity & tightness
22. Give 2 examples each for open chain & closed chain exercises
23. What is "break test"?
24. Name 2 uses of gutter crutch
25. Free exercises
26. Name 2 types of resisted exercises
27. Name 2 therapeutic effects of exercise in water

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – September 2014

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

## ELECTROTHERAPY

## (RS-3 & RS-4)

## Q.P. CODE: 2712

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. Write in detail about the physiological and therapeutic effects, indications and contraindications of interrupted galvanic current.
2. Define Ultra Sound therapy. Explain principles and production of ultra sound. Add a note on methods of application for the same.
3. Describe the procedure for plotting S-D curve. Explain uses of S-D curve in electro diagnosis.

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

4. Explain principles and production of LASER.
5. Explain indications and contraindications of contrast bath
6. Uses of IFT in management of stress incontinence
7. Define acupuncture TENS. Explain its mechanism for pain modulation
8. Uses of biofeedback in physiotherapy
9. Explain pain gate control theory
10. Describe physiological and therapeutic effects of Russian currents
11. Explain thermal and non-thermal effects of ultrasound
12. Explain anodal galvanism
13. Describe physiological and therapeutic effects of cryotherapy
14. Explain production and indications of MWD
15. Explain various methods of application of wax therapy
16. Explain physiological and therapeutic effects of UVR
17. Define electric shock. Explain methods for preventing shock

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

18. F-G test
19. Define motor point
20. Chronaxie
21. Define amplitude modulated frequency
22. Give two uses of EMG
23. Define duty cycle
24. Define sinusoidal current
25. What is piezo electric effects?
26. What is PUVA
27. Define saltatory conduction

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - September 2014

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

## RESEARCH METHODOLOGY & BIOSTATISTICS

## (RS-3 & RS-4)

## Q.P. CODE: 2713

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 principles of experimental design
2. Discuss about the characteristics of sample and population
3. Compute Mean, Median and Mode for the following data

| Duration of Hospital Stay (Days): | 0-4 | 4-8 | 8-12 | 12-16 | 16-20 |
|---|---|---|---|---|---|
| Number of Patients | 2 | 4 | 8 | 5 | 1 |

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

4. Explain about variables and levels of measurement
5. Briefly mention the problem accounted in research
6. Explain the properties of normal distribution curve
7. Define standard deviation and state the steps in computing standard deviation
8. Explain about hypothesis
9. Explain about ANOVA
10. Discuss about questionnaire and schedule
11. Explain about measurement scales
12. Mention the characteristics of good research
13. Research methods and methodology

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

14. Qualitative research
15. Nominal and ordinal data
16. Statement of the research problem
17. Pie diagram
18. Skewness
19. Kurtosis
20. Probability
21. Median
22. Need for sampling
23. Computer in research

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