(V)

2058_2009_1_S12

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.Sc. (Physiotherapy) Degree Examination – Feb - 2010

**Time: Three Hours** **Max. Marks: 70 Marks**

## PHARMACOLOGY
(Old Scheme)

## Q.P. CODE: 2058

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. a) Enumerate the routes of drug administration with examples
   b) Mention the advantages and disadvantages of I.V route of drug administration
2. Enumerate drugs used in tuberculosis, write mechanism of action, adverse effects and uses of Rifampicin
3. a) Enumerate nonsteroidal anti-inflammatory drugs
   b) Explain the mechanism of action of NSAID's as anti-inflammatory agents
   c) Enumerate the adverse effects of NSAID's

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

4. Drug synergism
5. Radio active iodine
6. Pre-anesthetic medication
7. Oral anti-diabetic drugs
8. Cotrimoxazole
9. Tachyphylaxis
10. Calcium channel blockers
11. Third generation cephalosporins

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

12. With example, define pro-drug
13. Rationale of using nitrate in angina pectoris
14. Mention four differences between morphine and pethidine
15. Name two drugs that induce extrapyramidal symptoms
16. Define broad spectrum antibiotics with examples
17. Name two cardio selective and two non-selective beta blockers
18. Explain the mechanism of action of local anesthetics
19. List four side effects of phenytoin sodium
20. Name four general anesthetics
21. Define idiosyncrasy with example

2059_2009_1_S106

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination – Feb - 2010

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

PATHOLOGY & MICROBIOLOGY (Old Scheme)

## Q.P. CODE: 2059 & 2060

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

**Use separate answer books for section A and section B**

### Q.P. Code: 2059 – Section 'A' – Pathology (50 Marks)

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

1. Define oedema. Describe etiology and pathogenesis of oedema
2. Discuss, difference between benign and malignant tumor

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

3. Atrophy
4. Fatty liver
5. Metaplasia
6. Fate of thrombus
7. Idiopathic thrombocytopenic purpura
8. Ghon's complex
9. Crohn's disease



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

10. Types of cirrhosis
11. Different thyroid tumors
12. Bony deformities in rickets
13. Name autoimmune disorders of skin
14. Types of neuropathies

### Q.P. Code: 2060 – Section 'B' – Microbiology (50 Marks)

**Use separate answer book**

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

1. Define sterilization. Classify different methods of sterilization. Describe in detail moist heat sterilization
2. Define nusocomial infections. Enumerate the organisms causing such infections. Write briefly on methods of reducing them

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

3. Bacterial capsule
4. Anaphylaxis
5. Pathogenecity of mycobacterium tuberculosis
6. Grams staining
7. Universal precautions against HIV infection
8. Classification of fungi
9. Polio virus

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

10. Enumerate any two organisms causing wound infections
11. KoH mount for the diagnosis of fungal infections
12. Bacterial meningitis
13. DPT Vaccination
14. asymptomatic

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# Rajiv Gandhi University of Health Sciences, Karnataka

13. DPT vaccination
14. Cryptococcus

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2158_2009_1_S132

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination – Feb - 2010

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

## PHARMACOLOGY
(RS & RS2)

## Q.P. CODE: 2158

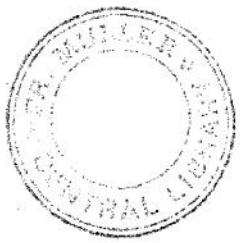
Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

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

1. Enumerate antiepileptics. Write the pharmacology of phenytoin sodium
2. Name the factors that influence the drug action. Explain briefly any four of them
3. Enumerate glucocorticoids. Write their therapeutic uses and adverse effects

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

4. Aspirin
5. Succinycholine
6. Enumerate beta lactam antibiotics and write the uses of ampicillin
7. Loop diuretics
8. Rifampicin
9. Pethidine
10. Doxycycline
11. Enumerate sedative hypnotics. Write the uses of diazepam
12. Sublingual route of administration
13. Lignocaine



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

14. Name four drugs used for preanaesthetic medication
15. Name four drugs used in rheumatoid arthritis
16. List four oral antidiabetic drugs
17. Mention four uses of gentamicin
18. Name two alpha blockers and mention two uses of them
19. Name four bronchodilators
20. Name two mucolytics
21. Tachyphylaxis
22. Mention four uses of adrenaline
23. Name four antidepressants

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2159_2009_1_S123

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T Degree Examination – Feb - 2010

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

PATHOLOGY & MICROBIOLOGY
(RS & RS2)

## Q.P. CODE: 2159 & 2160

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

**Use separate answer books for section A and section B**

### Q.P. Code: 2159 – Section 'A' Pathology (40 Marks)

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

1. Define necrosis, mention the types and write briefly about each type with example
2. Define diabetes mellitus. Discuss the laboratory diagnosis and complications of diabetes mellitus

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

3. Osteomylitis
4. Lobar pneumonia
5. Air embolism
6. Chemical mediators of inflammation
7. Fatty liver

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

8. Granulation tissue
9. Mention four differences between benign and malignant tumour
10. Hyperplasia
11. Mention the sites of peptic ulcer
12. Aschoff body

### Q.P. Code: 2160 – Section 'B' Microbiology (40 Marks)

**Use separate answer book**

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

1. Define nosocomical infection. Discuss in detail the common infections encountered in the hospital and add a not on their prevention and control
2. Describe the morphology, pathogenecity and laboratory diagnosis of Corynebacterium diphtheriae

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

3. Louis Pasteur
4. Hepatitis A virus
5. Autoclave
6. Bacterial spore
7. Candidiasis

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

8. Enumerate two gaseous disinfectants
9. Mention any four gram positive bacteria
10. Define Hypersensitivity
11. Mention four organisms causing urinary tract infections
12. Enumerate four modes of transmission for Human Immunodeficiency virus

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2161_2009_1_S13

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T Degree Examination – Feb - 2010

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

## THERAPEUTICS (0S, RS & RS2)

## 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. Describe in detail about the Frenkel's exercises. Explain the progression of Frenkel's exercise with example from sitting to standing
2. Write down the different patterns of PNF for lower extremity. Discuss any one pattern in detail
3. List the various techniques used in massage. Describe the therapeutic effects of each

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

4. Classify and explain passive movements
5. Technique for measurement of axillary crutch
6. Describe a good posture
7. Write the principles and uses of goniometry
8. Explain the indications and techniques in mat exercises
9. Describe how will you test and stretch a tendo-achilles tightness
10. Therapeutic effects of exercise in water
11. Give the types of breathing exercises. Describe any two in detail
12. Explain two types of suspension therapy method
13. Write about warm-up exercises and cool-down exercises
14. Write about various positions used in therapeutics
15. Enumerate the functions of the hand
16. Describe the shoulder joint mobilization
17. Postural drainage – principles, indications and techniques



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

18. Give two uses of satic cycle
19. Define power grip
20. Differentiate between coughing and huffing
21. Give two exercises for stiff ankle
22. Define trick movements
23. Muscle work in squatting
24. What is active insufficiency of a two joint muscle
25. Give two uses of parallel bars
26. Give two principles of manual muscle testing
27. Give two uses of relaxation

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2162_2009_1_S106

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T Degree Examination – Feb - 2010

**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. Describe the levels of stimulation and their effects on tissues
2. Discuss how dosage is calculated and progressed in Ultra Violet Radiation
3. Discuss the principles of production of Ultrasound and its transmission through tissues

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

4. Technique of treatment of vastus medialis inhibition with electrical stimulation
5. Cyclotherm
6. Tuning in shortwave diathermy
7. Causes and prevention of electrical and chemical burns in electrical stimulation
8. Dosage in shortwave diathermy
9. Precautions to be observed during treatment of face with ultraviolet radiation
10. Types of electrodes used in stimulation
11. Effect of electrical stimulation on blood flow
12. Commonly used drugs and dosage in phonophoresis
13. Electrical stimulation for wound healing
14. Technique of treatment of psoriasis with ultraviolet radiation
15. Methods of cable arrangement in inductothermy
16. Calculation of dosage in LASER
17. Near field and far field in ultrasound energy



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

18. Salutatory conduction
19. Neurotmesis
20. Steriodynamic interference field
21. Define antidromic and orthodromic conduction of impulses
22. What is critical fusion frequency in neuromuscular electrical stimulation?
23. Tridymite formation in UVR lamps
24. Define electromyography
25. What is Latent heat?
26. Destructive interference
27. What is mark: space ratio in ultrasound?

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2708 2009_1_S152

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination - Feb - 2010

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

## PATHOLOGY & MICROBIOLOGY

(RS - 3 & RS - 4)

## Q.P. CODE: 2708 & 2709

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

**Use separate answer books for section A and section B**

### Q.P. Code: 2708 – Section 'A' - Pathology (40 Marks)

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

1. Define and classify Neoplasia. Discuss the differences between benign and malignant tumor.
2. Etiopathogenesis and pathology of Atherosclerosis.

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

3. Phagocytosis.
4. Type II hypersensitivity reaction.
5. Dystrophic calcification.
6. Laboratory diagnosis of Sickle cell anemia.
7. Osteosarcoma.



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

8. Hypertrophy.
9. Granulation tissue.
10. Opportunistic infections associated with AIDS.
11. Components of Fallot's tetrology.
12. Major cross matching.

### Q.P. Code: 2709 – Section 'B' - Microbiology (40 Marks)

**Use separate answer book**

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

1. Define and classify immunity. Describe innate immunity in detail.
2. Write about morphology, pathogenecity and laboratory diagnosis of mycobacterium tuberculosis.

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

3. Universal precautions.
4. Gaseous disinfectants.
5. Diseases caused by staphylococcus.
6. Laboratory diagnosis of HIV infection.
7. Urinary tract infection.

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

8. Name four zoonotic diseases.
9. Name four virulence factors of bacteria.
10. Name two fungi causing systematic mycosis.
11. Name four bacteria causing respiratory infection.
12. Name two vaccines for poliomyelitis.

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2710_2009_1_S155

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination – Feb 2010

**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. Enumerate routes of drug administration. Describe oral, I.V. and inhalation routes.
2. Classify Anti-diabetic drugs. Describe the actions, adverse effects and uses on Insulin.
3. Classify Anti-cholinergics. Describe the actions, adverse effects and uses of Atropine.

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

4. Sources of Drugs.
5. Write the adverse effects and uses of Glucocorticoids?
6. Classify Beta- blockers and mention the clinical uses.
7. H2-Receptor blockers.
8. Write a note on Atypical Antipsychotics.
9. Write a note on Dopamine.
10. Write the adverse effects and uses of Digoxin?
11. Diclofenac.
12. Benzodiazepines.
13. Pancuronium.




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

14. Write any Two uses of ACE inhibitors.
15. Prodrug.
16. Introgenic diseases.
17. Mention any four drugs used in Parkinson's disease.
18. List the uses of Neostigmine.
19. PENTOXYPHYLLINE its use and mechanism of action.
20. Name any two drugs used in non-specific diarrhea.
21. Name Four antidepressants drugs.
22. Four advantages of INHALATIONAL CORTICOSTEROIDS used in Asthama.
23. Adverse effects of Nitrates.

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2711_2009_1_S152

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination - Feb - 2010

**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. Explain Suspension Therapy in detail.
2. Write in detail about any three Walking Aids.
3. Write in detail about Posture.

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

4. Explain the muscle work on Sitting position.
5. Write brief about Free Exercise.
6. Principles, Effects and uses of Muscle Strengthening.
7. Define Massage and its Contradiction.
8. Explain Stroking manipulation.
9. Explain Progressive Resisted Exercise.
10. Principles of Passive Movements.
11. Any two PNF Techniques for facilitation.
12. Precautions and Contradiction of Stretching.
13. Explain Kaltenborn Manipulation.
14. Components of Balance.
15. Frenkels Exercise.
16. Explain Rolator.
17. Explain Pranayama.




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

18. Define Equilibrium.
19. Transverse axis.
20. Types of the Energy.
21. Second order lever.
22. Pulley.
23. Motor Unit.
24. Reciprocal Innervations.
25. Uses of Mat Exercise.
26. Disadvantages of Group Therapy.
27. Any two Free exercises for Hip.

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2712_2009_1_S155

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination – Feb 2010.

**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. Explain the production of ultrasound its dangers and contraindications.
2. Describe different methods of UVR application, its therapeutic effects and physiological effects.
3. Explain the various methods of IFT application and the physiological basis of pain relief. Add a note on its role in stress incontinence.

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

4. Indications for microwave diathermy.
5. Use of TENS in postincisional pain.
6. Role of laser in soft tissue healing.
7. Contraindications for diadynamic currents.
8. Factors influencing the iontophoresis.
9. Properties of laser and its biophysical and bio stimulation effects.
10. Use of faradic current in pelvic floor re-education.
11. Role of TENS in cancer pain management.
12. Indications and application of contrast bath.
13. S.D. curve and its implications in nerve injuries.
14. Contraindications for microwave diathermy.
15. Application of HVPGS in wound healing management.
16. Catelectrotonus and Anelectrotonus.
17. Methods of wax applications and its contraindications.

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

18. Desquamation.
19. Piezoelectric effect.
20. Cosine law.
21. Selective pulses.
22. Glidemeister's effect in IFT.
23. Burst TENS.
24. Pulsed SWD-indications.
25. Dosage for acne vulgaris with UVR.
26. Mark space ratio.
27. Ramping.

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2713_2009_I_S106

# Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination – Feb - 2010

**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. Types of research
2. Define research design and explain the important experimental research design
3. Measures of central tendency

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

4. Basic principle of ANOVA (Analysis of variance)
5. Features for good research design
6. Research problem
7. Type of diagrams
8. Need for sampling
9. Research method vs methodology
10. Measurement scales
11. Explain the interview method of collecting data
12. Role of computers in research
13. Ranking scales



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

14. Cluster sampling
15. Any two qualities of a good research
16. Experiment and control group
17. Sampling unit
18. Define scaling
19. Any four important methods of collecting primary data
20. Define probability
21. Variables and their types
22. Research approaches
23. Define biostatistics

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