Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – 10-Nov-2025

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

PATHOLOGY - (RS-5)
Q.P. Code: 2737

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
(Note : Both QP Codes 2737 and 2738 are to be answered within total duration of 3 hours)

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

1. Define rheumatic fever. Explain the etiopathogenesis and pathology of rheumatic heart disease
2. Write about wound healing in detail

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

3. Explain the cellular events in acute inflammation
4. Clinical features of vitamin D deficiency
5. Discuss types of oedema
6. Define metaplasia with examples

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

7. Enlist the different modes of transmission of HIV
8. Write a note on Wilson's disease
9. Enumerate three functions of platelets
10. Enlist four tumour markers
11. Types of embolism

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – 19-May-2025

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

Microbiology - (RS-5)

Q.P. Code: 2738

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
(Note : Both QP Codes 2737 and 2738 are to be answered within total duration of 3 hours)

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

1. Define and classify sterilization. Write in detail about autoclave

2. Describe the pathogenesis and laboratory diagnosis and prophylaxis of enteric fever

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

3. Laboratory diagnosis of fungal infections

4. Laboratory diagnosis of tetanus

5. Normal flora of human body

6. Cryptococcus neoformans – pathogenicity and laboratory diagnosis

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

7. Enriched media

8. Structure of HIV

9. Quellung reaction

10. Name two differential staining methods

11. Name any three organism causing wound infection

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – 21-May-2025

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

PHARMACOLOGY (RS5)

Q.P. CODE: 2739

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. Classify anticholinergics agents. Mention the mode of action, adverse effects and uses of atropine.
2. Classify Neuromuscular blocking agents and describe the mechanism of action, indication and dose of Pancuronium.

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

3. Oral hypoglycemic drugs
4. Explain various factors modifying drug response.
5. Proton Pump Inhibitors
6. Aspirin
7. Treatment for Gout
8. Bronchodilators
9. Diazepam
10. Phenytoin
11. Treatment for Dementia
12. Antihistamines

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

13. Advantages of selective COX two inhibitors over Non-selective COX inhibitors
14. Name any four drugs causing postural hypotension as side effect.
15. Name any two selective serotonin reuptake inhibitors with indication.
16. Name any four drugs used for treatment for Rheumatoid arthritis.
17. Name any four drugs used for treatment for Myasthenia Gravis.
18. Glucocorticoids – uses and adverse effect
19. Metoclopramide.
20. Drug interaction for Non-steroidal anti-inflammatory drugs
21. Name any two angiotensin receptor blockers with their adverse effects.
22. Name any two Thrombolytics with mode of action.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – 23-May-2025

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

EXERCISE THERAPY (RS5)
Q.P. CODE: 2740

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 massage. Classify massage with indication and contraindications.
2. Explain the tests of co-ordination. Describe the frenkles exercise program for lower limbs in co-ordination.

   OR

   List the types of posture. Explain the principles of postural re-education.

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

3. Write a note on grades of mobilization.

   OR

   Describe the testing and stretching for quadriceps tightness.
4. Explain the procedure of measurement for an axillary crutch.
5. Define suspension therapy. Explain the types suspension.
6. Explain the measurement method for true length.
7. **Types of Muscle contraction in detail**
8. Describe any two techniques of Pranayama.
9. Describe the elements in an asana.
10. **Classification of Passive movements**
11. Describe the MMT grading for deltoid muscle from grade 2 – grade 5.
12. Give the principles of hydrotherapy.

    OR

    Explain the principles of PNF technique.

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

13. Define free exercises.
14. Define recruitment of motor units.
15. Uses of parallel bars.
16. What is closed chain exercise?
17. Define endurance.
18. Describe hold relax technique.
19. Advantages of PNF exercise.
20. Uses of practicing yoga.
21. Uses of open chain exercise.
22. Why do we measure muscle girth?

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – 26-May-2025

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

ELECTROTHERAPY (RS-5)
Q.P. CODE: 2741

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 ultrasound therapy. Explain in detail about the thermal and non-thermal effects of ultrasound. Add a note on dangers of ultrasound.
2. Explain wax therapy. Indications, contraindications and methods of application.
   OR
   Define iontophoresis. Add a note on principles and iontophoresis and contraindications.

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

3. Microwave diathermy.
   OR
   Define transformer and its functions.
4. Principles of production of laser.
5. Difference between conductor and insulator.
6. Fluidotherapy.
7. Contrast bath.
8. Electromagnetic spectrum.
9. Principles of NMES.
10. Explain pain gate control theory in detail.
11. EMG.
12. Define fuse, its types and principles.
    OR
    Add a note on FG test.

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

13. Ohm's law and its application in physiotherapy.
14. Micro and Macro shock.
15. Lewis Huntington's phenomenon.
16. Electric shock.
17. Phonophoresis.
18. Piezoelectric effect and crystals in UST.
19. Duty cycle.
20. Motor unit with neat labelled diagram and motor point.
21. Half value depth and coupling media.
22. **Name two neurotransmitters in pain**

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – 10-Nov-2025

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

PATHOLOGY - (RS-5)
Q.P. Code: 2737

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
(Note : Both QP Codes 2737 and 2738 are to be answered within total duration of 3 hours)

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

1. Define rheumatic fever. Explain the etiopathogenesis and pathology of rheumatic heart disease
2. Write about wound healing in detail

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

3. Explain the cellular events in acute inflammation
4. Clinical features of vitamin D deficiency
5. Discuss types of oedema
6. Define metaplasia with examples

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

7. Enlist the different modes of transmission of HIV
8. Write a note on Wilson's disease
9. Enumerate three functions of platelets
10. Enlist four tumour markers
11. Types of embolism

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – 10-Nov-2025

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

Microbiology - (RS-5)
Q.P. Code: 2738

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
(Note : Both QP Codes 2737 and 2738 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-I hypersensitivity

2. Enumerate viruses causing hepatitis. Describe the pathogenesis and laboratory diagnosis of Hepatitis-B virus. Add a note on its prophylaxis

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

3. Tuberculin test

4. Enumerate sexually transmitted diseases. Add a note on laboratory diagnosis of syphilis

5. Determinants of Antigenicity

6. Bacterial capsules

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

7. Black water fever

8. Define biological vectors. Give two examples

9. Give three examples of RNA viruses

10. Name any three Zoonotic diseases

11. Name three opportunistic fungi

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – 12-Nov-2025

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

PHARMACOLOGY (RS-5)
Q.P. CODE: 2739

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. Classify NSAIDs. Explain the mechanism of action, uses and adverse effects of paracetamol
2. Classify Diuretics. Explain the mechanism of action, therapeutic uses and adverse effects of furosemide

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

3. Phenytoin
4. Metformin
5. Atropine and its substitute
6. Treatment for H. Pylori infection
7. Salbutamol
8. Anti-coagulants
9. Write a note on drugs used in Parkinsonism
10. Glucocorticoids
11. Calcium channel blockers
12. ACE inhibitors

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

13. Two drugs used in depression
14. Explain prodrug with two examples
15. Name four oral hypoglycaemic drugs
16. Teratogenic drugs
17. Name four drugs used in rheumatoid arthritis
18. Four drugs used in peptic ulcer
19. Antidote for a) Organophosphorus poisoning b) Warfarin toxicity
20. Synergism with examples
21. Four uses of adrenaline
22. Define first and zero order kinetics with one example each

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – 14-Nov-2025

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

EXERCISE THERAPY (RS-5)
Q.P. CODE: 2740

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. Explain the principles and laws related to hydrotherapy. Safety measures to be taken during hydrotherapy.
2. Explain the factors predisposing to posture. Discuss the technique of postural re-education. Add a note on patient education.

   OR

   Describe the physiology of balance, components of balance, causes of impaired balance and activities to treat impaired balance.

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

3. What is repetition maximum? Describe the procedure for determining 10RM.

   OR

   Rhythmic stabilization technique.
4. Advantages and limitations of group exercises.
5. Determinants of gait.
6. Classify asanas. Write a note on the principles of asanas.
7. Oxford method of progressive resisted exercise.
8. Non-weight bearing gait training.
9. Principles and grades of joint mobilization.
10. Define active movement and explain its types.
11. Explain closed chain exercises with examples.
12. Non equilibrium tests to assess coordination.

    OR

    Techniques of general relaxation.

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

13. Contraindications of facial massage.
14. **Grades of MMT - Manual Muscle Testing**
15. Limitations of joint range of motion.
16. Type of suspension therapy.
17. Circuit-Interval training.
18. **Brief Resisted Isometric Exercise**
19. Composition of forces.
20. Causes of decreased muscle performance.
21. Functional reach test.
22. Crutch muscles.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – 17-Nov-2025

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

ELECTROTHERAPY (RS5)
Q.P. CODE: 2741

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 LASER. Explain the principle of production of LASER and its methods of application.
2. Define pain. Write the various theories of pain and enumerate the pain gate control theory in detail.

   OR

   Define strength duration curve. Explain the method of plotting the curve and interpretation of the curve in various nerve lesions.

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

3. **Describe tissue impedance and techniques for lowering skin resistance.**

   OR

   Define cryotherapy and write note on various methods of its application.
4. Types of TENS
5. Explain the principles of application of Parafin Wax Bath.
6. Describe any two methods of production of UVR (Ultra-violet radiation).
7. Define electrode coupling and characteristics of an ideal couplant.
8. Physiological and therapeutic effects of SWD
9. Explain the principle of Ultrasound production.
10. Define diadynamic current and enumerate its types.
11. Describe capacitors.
12. Define shock and write note on safety precautions to prevent shock.

    OR

    Propagation of action potential.

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

13. Define microcurrents.
14. Define Ohm’s law.
15. What is iontophoresis and its agents?
16. Define electromagnetic spectrum.
17. Define Chronaxie and Rheobase.
18. What is Half value distance?
19. What is Lewis Hunting reaction?
20. Define Fuse.
21. What is Microshock and macroshock?
22. Define Russian currents.

*****

Rajiv Gandhi University of Health Sciences, Karnataka