# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – APRIL-2018

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 Opioiod analgesics. Describe the pharmacological actions, uses and adverse effects of Morphine. Write a note on Fentanyl.
2. Classify Antihypertensives. Describe the Pharmacological actions, uses and adverse of beta-blockers.
3. Classify general anaesthetics. Write the activities and advantages of IV anaesthetics.

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

4. Special targeted delivery system.
5. Tachyphylaxis.
6. Cox 2 inhibitors.
7. Dantrolene
8. Uses of Adrenaline
9. Sodium Valproate
10. Mast cell stabilizers
11. Anxiolytics
12. Furosemide
13. Drugs in Myasthenia gravis

SHORT ANSWERS 10 x 2 = 20 Marks

14. One use and one adverse effect of Succinylcholine
15. One use and one adverse effect of Digitalis
16. One use and one adverse effect of Paracetamol
17. One use and one adverse effect of Gabapentin
18. One use and one adverse effect of Alprazolam
19. One use and one adverse effect of Mannitol
20. One use and one adverse effect of Ipratropium
21. One use and one adverse effect of amoxycillin
22. One use and one adverse effect of Doxycycline
23. One use and one adverse effect of Benzodiazepines

# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - APRIL-2018

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 inflammation. Discuss briefly cellular events of acute inflammation.
2. Etiopathogenesis and pathology of Lobar pneumonia.

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

3. Metaplasia.
4. Ghon's complex.
5. Peripheral smear and marrow picture in Megaloblastic anemia.
6. Pathology of alcoholic cirrhosis.
7. Chronic osteomylitis.

SHORT ANSWERS 5 x 2 = 10 Marks

8. Fate of thrombus.
9. Special stains for amyloid.
10. RS cell.
11. Eosinophilia.
12. Leukoplakia.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - APRIL-2018

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 infection. Describe the different sources of infection and routes of transmission of infection.
2. Define and classify immunity. Describe Innate immunity in detail.

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

3. WIDAL test
4. Bacterial growth curve
5. Autoclave
6. Blood culture
7. Coagulase test

SHORT ANSWERS 5 x 2 = 10 Marks

8. BCG vaccine
9. Name two antiviral agents
10. Cold sterilization
11. Selective media
12. Name four zoonotic diseases.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - Aug / Sep 2011

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 the actions, uses and adverse effects & contraindications effects of morphine
2. Enumerate factors modifying drug effect. Explain any 2 with suitable examples
3. Enumerate drugs for congestive cardiac failure. Describe the actions, uses and adverse effects of cardiac glycoside

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

4. Merits and demerits of sublingual route
5. Drugs for glaucoma
6. Loop diuretics
7. Selective $\beta_2$ agonists
8. Prokinetic agents
9. IInd generation sulphonylureas
10. Neuromuscular blockers
11. Carbidopa
12. Calcium channel blockers
13. Drug dependence with examples

SHORT ANSWERS 10 x 2 = 20 Marks

14. Why atropine is given before Neostigmine in myasthenia gravis?
15. Why Propranolol is contraindicated in bronchial asthma patient?
16. Mention two clinical uses of diazepam
17. Mention the antidote for morphine and Paracetamol toxicity
18. Glucocorticoids are beneficial in bronchial asthma – How?
19. Mention one drug each for acute and chronic Gout
20. Mention two drugs for depression
21. Name two clinical uses of aspirin
22. Rationale of using mucolytics in productive cough
23. Mention two long term adverse effects of corticosteroids

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – APRIL-2018

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. Define inco-ordination, what are the tests for co-ordination? Write in detail about Frenkel's exercise
2. Describe in detail principle, uses & types of massage technique
3. What are the principles of hydrotherapy? Explain it's method of application, merits & demerits

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

4. Name the types of walking aids, Explain pre-crutch training
5. What are the physiological changes in response to aerobic training
6. Write a note on Maitland's technique of peripheral joint mobilization
7. Measurement of the angle of pelvic inclination
8. Explain the technique of Anthropometric measurements
9. Static power test
10. Define muscle tone, what are the indications & methods of relaxation technique?
11. Explain the techniques of strengthening of Hamstrings form grade -2 to grade-5
12. Explain the principles of pranayama
13. Write a note on group exercises
14. Vajrasana – uses and effects
15. Mat exercises
16. Explain the contract relax & hold relax technique of PNF
17. Explain the principles & technique of suspension therapy

SHORT ANSWERS 10 x 2 = 20 Marks

18. Name the muscles working in standing
19. Uses of cool – down exercise
20. Define prime movers & synergists
21. True & apparent limb length
22. Give 2 uses of passive exercises
23. Differentiate between tightness & contracture
24. Name 2 uses of overhead pulley
25. Define concentric & eccentric muscle work
26 Name 2 strengthening techniques of PNF
27 Define motor unit

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - APRIL-2018

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. Define Alternating Currents (AC). Explain in detail the therapeutic effects of A.C.
2. Explain the production of Short wave diathermy (SWD). And its various Methods of application.
3. Define Pain. Mention various types of TENS and its role in the modulation of pain.

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

4. Faradism under elevation.
5. Cathodal and Anodal Galvanism.
6. Contraindications of Cryotherapy.
7. Safety precautions when using electrical currents.
8. List the various tests of electrodiagnosis.
9. What is LASER? Explain about its therapeutic uses.
10. Dangers of Infrared radiations (IRR).
11. Therapeutic uses of Ultrasound therapy.
12. Explain the therapeutic uses of Whirl Pool Bath.
13. What is Contrast Bath? Explain its procedure of application
14. Types of UVR generators.
15. Explain about action potential.
16. Explain various methods of applications of Paraffin Wax Bath.
17. Electrode placement in TENS.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Define Inverse Square Law.
19. Define Russian Currents.
20. Chronoxie.
21. Mutual Induction.
22. Micro Currents.
23. What is Diode Laser.
24. Two Contraindications of Paraffin wax bath.
25. What is dermatome?
26. What is mark-space ratio in Ultra Sound Therapy.
27. Parameters used in TENS.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - APRIL 2018

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 in detail about graphical presentation of data
2. Explain different types of sampling design
3. Explain measures of central tendency

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

4. Measures of dispersion
5. Define variable. Explain briefly its types
6. Null and alternative hypothesis
7. Difference between research methods and methodology
8. Explain steps involved in the processing of data
9. Scales of measurements
10. What are the methods of data collections?
11. Analysis of variance (ANOVA)
12. Use of computer in research
13. Problems encountered by researchers in India

SHORT ANSWERS — 10 x 2 = 20 Marks

14. Normal distribution
15. Target population
16. Define mean
17. Mean deviation
18. Cohort study
19. Qualitative research
20. Explain procedure of tabulation of data
21. Cluster sampling
22. Experiment and control group
23. Sampling of design errors

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# Rajiv Gandhi University of Health Sciences, Karnataka

## II Year B.P.T. Degree Examination – APRIL-2018

Time: 3 Hours Max. Marks: 40 Marks

## 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. What is pneumonia? Describe the morphology and complications of lobar pneumonia. (2+4+4)
2. Define Neoplasia. Discuss the difference between benign and malignant tumors. (2+8)

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

3. Enumerate Dystrophic calcification.
4. Classification of haemolytic anaemia.
5. Morphology and staining characteristics of Sago Spleen
6. Risk factors and pathogenesis of Cholelithiasis
7. Opportunistic infections in AIDS

SHORT ANSWERS 5 x 2 = 10Marks

8. Microscopy of Basal cell carcinoma
9. What is Ghon complex?
10. What is Philadelphia chromosome?
11. Fate of thrombus
12. What is protein energy malnutrition?

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# Rajiv Gandhi University of Health Sciences, Karnataka

## II Year B.P.T. Degree Examination – APRIL-2018

Time: 3 Hours Max. Marks: 40 Marks

## 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. Draw a neat labeled diagram of a bacterial cell. Write in about the bacterial cell wall.
2. Enumerate the bacteria causing enteric fever. Give a detailed account about the laboratory diagnosis of enteric fever.

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

3. Bacterial growth curve
4. Hot air oven
5. Anaphylaxis
6. Gas gangrene
7. Coagulase test

SHORT ANSWERS 5 x 2 = 10Marks

8. Name any two Gram Negative bacteria.
9. Name any two RNA viruses.
10. Name any four zoonotic diseases.
11. Name any two dimorphic fungi.
12. Name any two bacteria causing wound infections.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – April 2018

Time: Three Hours | Max. Marks: 80 Marks

## 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 Two) 2 x 10 = 20 Marks

1. Classify antihypertensive drugs and describe the mechanism of action, uses and adverse effects of ACE inhibitors.
2. Classify centrally acting muscle relaxants and describe the mechanism of action, indication and dose of Tizanidine.
3. Classify adrenergic drugs and explain about Adrenaline.

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

4. Insulin
5. Lignocaine
6. Ranitidine
7. Ketamine
8. Carbamazepine
9. Pancuronium
10. Loop diuretics
11. HMG CoA reductase inhibitors
12. Low Molecular Weight Heparin
13. Digoxin

SHORT ANSWERS 10 x 2 = 20 Marks

14. Name two indication and adverse of morphine
15. Placebo
16. Name any four drugs used in treatment of peripheral vascular disease
17. Plasma Half-life
18. Define Pharmacodynamics.
19. Tachyphylaxis
20. Prodrug and its advantages
21. Teratogenic drugs
22. Name any four drugs used for treatment of constipation.
23. Name any four drugs used for treatment of Diarrhea.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – APRIL-2018

Time: Three Hours | Max. Marks: 100 Marks

## 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 (Answer any Two) 2 x 10 = 20 Marks

1. Explain starting positions in detail with the muscle activity for each.
2. Define passive movements. Classify passive movements and explain the principles in detail.
3. Define massage. Classify massage with indications and contraindications.

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

4. Explain the principles of hydrotherapy.
5. Describe five principles of PNF technique.
6. Types of active movements
7. Give five limitations of goniometry
8. Types of suspension therapy
9. Discuss the cardiovascular adaptation to exercise training.
10. Describe the stretching technique for hamstring tightness.
11. Describe limb length measurement techniques in upper limb.
12. List the types of walking aids with their uses.
13. Define passive movement. Explain the types of passive movement.
14. Describe merits and demerits of group exercises.
15. Define functional re-education and mention the stages from lying to sitting.
16. Describe the types of muscle contraction with examples.
17. Write about Frenkels exercise for lower limb.

SHORT ANSWERS 10 x 2 = 20 Marks

18. What is Ballistic stretching?
19. What is Max $Vo_2$?
20. Give two uses of massage.
21. Describe two uses of goniometry.
22. Give two advantages of endurance exercise.
23. Define PNF.
24. Define contracture and tightness.
25. Give two differences between eccentric contraction and stretching.
26. What is 10 RM?
27. What is BRIME?

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – APRIL-2018

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 (Answer any Two) 2 x 10 = 20 Marks

1. Define LASER. Explain the various methods of production of LASER and its physiological and therapeutic effects.
2. Define SWD. Explain its production, physiological and therapeutic effects in detail.
3. Define pain and explain about modulation of pain in detail with neat diagrams.

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

4. Explain about Non thermal effects of ultrasound.
5. Explain about Faradic foot bath in detail.
6. Describe the instrumentation of NMES.
7. Selection of current and commonly used drugs in Ionotophoresis
8. Classify Low frequency currents in detail.
9. SD Curve its Advantages and Disadvantages
10. Uses of Biofeed back in Physiotherapy
11. Moist heat therapy
12. Define EMG and its construction.
13. Define IRR its parameters and Production of IRR.
14. Cyclotherm and its physiological effects
15. Define IFT and its static and dynamic interference system.
16. Explain the procedure for training intrinsic foot muscles.
17. Contrast bath its methods of application, indication and contraindications

SHORT ANSWERS 10 x 2 = 20 Marks

18. PUVA
19. Define Russian current.
20. Define shock and its precautions.
21. Grades of nerve injury
22. Define latent heat of fusion.
23. Chronaxie and Rheobase
24. F-wave
25. Rebox currents
26. FG test
27. Labile technique

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