

# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

**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. Define and classify cirrhosis. Discuss alcoholic liver disease. (2+2+6)
2. Define edema. Discuss etiopathogenesis of edema. Discuss renal edema. (2+4+4)

### **SHORT ESSAYS (Answer any Four)**

**4 x 5 = 20 Marks**

3. Etiopathogenesis and types of pathological calcification with examples
4. Define metaplasia with examples.
5. Classification and microscopy leprosy.
6. Morphology of osteosarcoma
7. Etiopathogenesis and microscopy of Hashimoto's thyroiditis

### **SHORT ANSWERS**

**5 x 2 = 10Marks**

8. Types of emphysema
9. Mention three laboratory diagnosis of Beta-Thalassaemia.
10. Cardinal signs of inflammation
11. Four examples of congenital heart diseases
12. Classify bleeding disorders.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

**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. Define and classify sterilization. Give a detailed account of moist heat methods of sterilization.
2. Enumerate the viruses causing hepatitis. Write in detail about the pathogenicity and laboratory diagnosis of hepatitis B virus.

### **SHORT ESSAYS (Answer any Four)**

**4 x 5 = 20 Marks**

3. Normal flora of the human body
4. Bacterial growth curve
5. Determinants of antigenicity
6. Clinical manifestation of staphylococcus aureus
7. Prophylaxis of polio

### **SHORT ANSWERS**

**5 x 2 = 10Marks**

8. Name any two capsulated bacteria.
9. Name any two biological vectors.
10. RNTCP of tuberculosis (Revised National Tuberculosis Control Programme)
11. Name any two superficial fungal infections.
12. Name any two opportunistic infections in AIDS.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

**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 antiepileptic drugs and explain about Phenytoin.
2. Classify oral hypoglycemic and explain about Metformin.
3. Drugs used in treatment of Gout

### **SHORT ESSAYS (Answer any Eight)**

**8 x 5 = 40 Marks**

4. Salbutamol
5. Treatment for allergic rhinitis
6. Insulin
7. Bisacodyl
8. Biotransformation
9. ACE inhibitors
10. Treatment for Myasthenia gravis
11. Tricyclic antidepressants
12. Diazepam
13. Phenobarbitone

### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

14. Adverse effects of glucocorticoids
15. Name any four drugs causing orthostatic hypotension as adverse effects in geriatrics.
16. Name any four drugs increasing the risk dementia in geriatrics.
17. Name any four drugs interacting with NSAID.
18. Name any two uses and adverse effects of digoxin.
19. Tachyphylaxis
20. Teratogenic drugs
21. Placebo
22. Name any two uses and adverse effects of Atorvastatin.
23. Styptics

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T Degree Examination – SEP-2017

**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. What are aerobic exercises? Explain the principles of aerobic exercise training and its effect on cardiovascular system.
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. Explain the types of suspension therapy.
5. Explain the ATP-PCr system during exercise.
6. List out starting positions. Explain any one starting position with the muscle activity.
7. Write about open chain and closed chain exercise.
8. Advantages and disadvantages of group exercises
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. What is progressive resisted exercise? Explain oxford technique.
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. Define stride length.
19. Isokinetic exercises
20. BRIME
21. Gutter Crutch
22. Define equilibrium.
23. SAID principle
24. 10RM
25. Vo2 Max
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 – SEPT 2017

**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. What is Piezzo electric effect? Describe the production of ultrasound with a neat diagram. Mention the indications and contraindications of ultrasound.
2. Describe the production of LASER. Write a note on the dosage of LASER.
3. Describe the production of IRR. Add a note on dosage and dangers of IRR.

### **SHORT ESSAYS (Answer any Twelve)**

**12 x 5 = 60 Marks**

4. Cavitation in ultrasound
5. Describe the cable method of SWD.
6. Physiological and therapeutic effects of MWD
7. Explain the principle of biofeedback.
8. Mechanism of propagation of action potential
9. Indications and contraindications of IRR
10. Physiological and therapeutic effects of UVR
11. Methods of application of wax
12. Placement and spacing in SWD
13. Principles of fluidotherapy
14. Therapeutic uses and contraindications of Moist heat therapy
15. Indications and contraindications of contrast bath
16. Electrode placement in IFT
17. Dosage of TENS

### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

18. What is standing wave in ultrasound?
19. What is magnetron?
20. Define Rheobase and Chronaxie.
21. What is attenuation?
22. Methods of application of wax bath
23. Name dangers of UVR
24. FG test
25. Beat frequency in IFT
26. Accommodation
27. Sinusoidal current

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - SEP-2017

**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 anaemia. Classify anaemia and write laboratory diagnosis of Iron deficiency anaemia.
2. Define inflammation. Discuss vascular and cellular events in acute inflammation.

### **SHORT ESSAYS (Answer any Four)**

**4 x 5 = 20 Marks**

3. Causes of edema
4. Atrophy and hypertrophy
5. Tuberculous arthritis
6. Osteoporosis
7. Thrombosis

### **SHORT ANSWERS**

**5 x 2 = 10 Marks**

8. Rickets
9. Exudates
10. Name four hemoparasites.
11. Virchow's triad
12. HIV - modes of transmission

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - SEP-2017

**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 sterilization. Write about autoclave.
2. Draw neat, labeled diagram of HIV. Write about laboratory diagnosis of HIV-AIDS.

### **SHORT ESSAYS (Answer any Four)**

**4 x 5 = 20 Marks**

3. Laboratory diagnosis of streptococcal infections
4. Normal flora of body
5. Gas gangrene
6. Ig A.
7. Bacterial growth curve

### **SHORT ANSWERS**

**5 x 2 = 10 Marks**

8. Cytopathic effects
9. Name four zoonotic diseases.
10. Name four fungi causing deep mycoses.
11. Significant bacteriuria
12. Plasmodium falciparum - complications

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination - SEP-2017

**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 skeletal muscle relaxants. Write the action, uses and adverse effects of centrally acting agents
2. Enumerate Glucocorticoids. Mention the uses and long term adverse effects of prednisolone. Add a note on HPA axis suppression
3. Classify antianginal drugs. Describe the actions uses and adverse effects of nitroglycerine

### SHORT ESSAYS (Answer any Eight)

**8 x 5 = 40 Marks**

4. Drug tolerance with examples
5. Cardio selective Beta-blockers
6. Inhalational bronchodilators
7. Anabolic steroids
8. Cardiac glycosides
9. Phase I biotransformation
10. Drugs for chronic Gout
11. Proton pump inhibitors
12. Levodopa
13. ACE inhibitors

### SHORT ANSWERS

**10 x 2 = 20 Marks**

14. Mention two drugs for myasthenia gravis
15. Name two adverse effects of phenytoin
16. Mention two emergency uses of adrenalin
17. Define drug synergism with one example
18. Give two examples for drugs acting by inhibiting an enzyme
19. Mention two drugs causing parkinsonism
20. What is teratogenesis? Give one example
21. Write the treatment for status epilepticus
22. Mention two uses of Thiazide diuretics
23. Mention two drugs to prevent osteoporosis

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

**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. Classify the techniques of Massage. Give the physiological effects of Massage. Describe any ONE.
2. Give the principles of MMT. Explain methods of assessment of deltoid from Grade 2 - 5.
3. List the principles of hydrotherapy. Describe each in detail with examples.

### SHORT ESSAYS (Answer any Twelve)

**12 x 5 = 60 Marks**

4. Enumerate 5 starting positions. Describe in detail any ONE.
5. Explain the types of aerobic training.
6. List types of walking aids. Explain two in detail.
7. Enumerate types of trick movements. Describe any one in detail.
8. Explain the various types of goniometers used.
9. Define types of posture. Give principles of postural re-education.
10. Give the types of passive movements with examples.
11. Explain the principles and uses of relaxation.
12. Give the advantages of MMT.
13. Explain use of axial suspension for knee joint.
14. Describe 5 methods to mobilize a stiff joint.
15. Explain the therapeutic effects of massage.
16. Describe the principles of PNE techniques.
17. Describe measurement of apparent length.

### SHORT ANSWERS

**10 x 2 = 20 Marks**

18. Give the importance of measuring pelvic inclination.
19. Give 2 uses of resistance exercise.
20. Describe any one asana with example.
21. Define the term BRIME.
22. Advantages of group exercise (any two).
23. Give 2 contraindications for active exercise.
24. List 2 uses of balance training.
25. Give 2 tests of in -coordination.
26. Give 2 contraindications of massage.
27. What is dynamic power test?

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEPT 2017

**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. Describe the physiological effects and therapeutic uses of ultra sound.
2. Write in detail the principles of production of UVR?
3. Classify TENS. Write in detail the mechanism of pain relief for various types of TENS?

### **SHORT ESSAYS (Answer any Twelve)**

**12 x 5 = 60 Marks**

4. Therapeutic effects of microwave diathermy.
5. Method of application of ultrasound.
6. Indication and contraindication for shortwave diathermy.
7. Physiological and therapeutic effects of wax bath.
8. Define condenser. Explain types and uses.
9. Construction of EMG equipment.
10. Dangers and precaution for LASER.
11. Faradism under pressure.
12. Indications and contraindications of infra red radiations.
13. Electrode placement of INTERFERENTIAL THERAPY.
14. Properties of electromagnetic radiations.
15. Define burns give an account of prevention.
16. Moist heat therapy.
17. Bio-feed back.

### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

18. What is chronaxie?
19. Classify Laser.
20. Micro massage.
21. Types of nociceptors.
22. Define Ohm's law.
23. What is latent heat?
24. Define monochromacity.
25. What is coupling media?
26. Two indications of cryotherapy.
27. Define depolarization.

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# Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.P.T. Degree Examination – SEP-2017

**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. Define biostatistics, Explain characteristics of biostatistics
2. Define research design, Explain the different types of research design
3. Define tabulation. Explain the important types of graphical representation

### SHORT ESSAYS (Answer any Eight)

**8 x 5 = 40 Marks**

4. Analysis of variance and covariance (ANOVA & ANACOVA)
5. Stratified sampling
6. Chi-square test
7. Explain measures of asymmetry
8. Explain steps involved in the processing of data
9. Describe basic concept concerning testing of hypotheses
10. Describe various scale of measurement with examples
11. Explain measures of central tendency
12. Criteria for a good research
13. Explain questionnaire methods of data collection

### SHORT ANSWERS

**10 x 2 = 20 Marks**

14. Define ratio scale
15. Define mode
16. Coding
17. Distinguish between primary and secondary data
18. Frequency polygon
19. Case-control study
20. Sampling errors
21. Standard deviation
22. Binomial distribution
23. Skewness

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