(13) 2708

Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination - March 2009

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

PATHOLOGY & MICROBIOLOGY

(RS - 3 & RS - 4)

Q.P. CODE: 2708 & 2709

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)

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

1. Define necrosis. Describe the types of necrosis. Add a note on autolysis
2. Classify lymphomas. Discuss Hodgkins Lymphoma in detail

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

3. Pneumonia
4. Pyogenic osteomyelitis
5. Leukemoid reactions
6. Protein energy malnutrition
7. Thrombosis

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

8. Granuloma
9. Precancerous lesions
10. Modes of transmission of AIDS
11. Apthous ulcer
12. Special stains for amyloid

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

Use separate answer book

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

1. Draw a neat labeled diagram of bacterial cell. Describe cell wall in detail
2. Enumerate organisms causing wound infections. Discuss the laboratory diagnosis of Staphylococcus aureus infections. Add a note on Methicillin resistant Staphylococcus aureus

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

3. Hepatitis – B virus
4. Laboratory diagnosis of cholera
5. Dermatophytes
6. Meningitis
7. Antibiotic susceptibility testing

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

8. Draw a neat labeled diagram of IgG
9. Name any four organisms causing nosocomial infections
10. Name four opportunistic infections of AIDS
11. Cold sterilization
12. BCG

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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 beta blockers. Discuss the pharmacology of propranolol
2. Classify central and peripheral acting muscle relaxants. Enumerate their clinical uses
3. What are diuretics? Classify them. State the mechanism of action and give the clinical uses of Loop diuretics

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

4. Write the mechanism of action and uses of NSAIDS
5. Discuss the therapeutic uses of calcium channel blockers
6. Write a note on phenytoin
7. Name the topical routes of drug administration with examples
8. Write a note on statins
9. What are anticholinesterases? Give their clinical uses
10. Classify antidepressants. Write a note on tricyclic antidepressants
11. Write the uses of adrenaline
12. What is Parkinson's disease? Write a note on levodopa
13. Discuss the drugs used to treat constipation

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

14. Mention the natural sources of drugs with examples
15. What are biguanides?
16. Give reasons why insulin is not administered orally and acetycholine is not used clinically
17. What is myasthenia gravis? Name two drugs used to treat it
18. Give the therapeutic uses of diazepam
19. What are nasal decongestants?
20. What are potassium channel openers? Give examples
21. What is chronic obstructive pulmonary disease? Name two drugs to treat it
22. Name two drugs each to treat angina pectoris and diabetes mellitus
23. Discuss uses of glucocorticoids

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(15) 2711

Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination - March 2009

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 in detail
2. Define co-ordination. What are the principles of co-ordination exercises? Write in detail about Frenkels exercises
3. Write an essay on the physiological and therapeutic effects of massage

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

4. Explain co-ordination tests
5. What are the principles of passive movements?
6. What are the principles and indications of resisted exercises?
7. Explain Manual Muscle Testing with examples
8. Write in brief about precautions, techniques and contraindication of stretching
9. Write briefly about mat activities
10. Explain the different types of walking aids
11. What is good posture? Write about corrective methods and patient education to maintain good posture
12. Explain about petrissage manipulation
13. Explain functional re-education
14. Write in brief about effects and uses of hydrotherapy
15. What are the advantages and disadvantages of group exercises?
16. Explain physiological response to aerobic exercise
17. Write briefly about examination and evaluation of impaired balance

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

18. Define IORM
19. Define active movement
20. What is suspension therapy?
21. Write two uses of breathing exercises
22. What is Rhythmic stabilization?
23. What are multiple angle isometrics?
24. Write two indications for free exercises
25. Define strength and endurance
26. Write two effects of stretching
27. What is pranayama?

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Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.P.T. Degree Examination - March 2009

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. What is piezoelectric effect? Explain the production of ultrasound and various methods of application
2. What is faradic current? Explain its physiological and therapeutic effects
3. What are the medium frequency currents? Describe the production of IFT, what is static and dynamic interference system

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

4. Indications and contraindication of IRR
5. Electromagnetic induction
6. Explain the construction and working of transformer
7. Write about types of LASER and its dosage parameters
8. Explain the contraindication of short wave diathermy
9. Enumerate the precautions to be taken in using currents for therapy
10. Explain briefly about nerve conduction studies (NCS)
11. Define phonophoresis. What are the commonly used drugs for the same?
12. Explain about anodal and cathodal galvanism
13. If E_1 is 30 sec at 450 mm, find the 2nd progression at 450 mm
14. Explain the physical principles of thermal energy
15. Explain nature and features of electromagnetic spectrum
16. Explain the production and therapeutic uses of microwave diathermy
17. How do you calculate the E_1 dose of the UVR?

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

18. Motor unit
19. Diadynamic current
20. Define electric shock
21. What is Tridmyite formation?
22. Cosine law
23. What is attenuation?
24. Eddy currents
25. Define Iontophoresis
26. What is macro current?
27. What is Mulch?

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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 basic principles of experimental research design
2. Computer application in medical research
3. Explain basic principles of ANOVA (analysis of variance)

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

4. Define scaling and explain the classification of scaling
5. Objectives of research
6. Research problem
7. Need for measures of central tendency
8. Measurement scales
9. Define biostatistics and explain the importance of studying statistics
10. Features of good research design
11. Sampling techniques
12. Normal probability curve
13. Techniques of developing measurement tools

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

14. Give two examples for Ratio Scale
15. Quantitative vs qualitative research
16. List important experimental research design
17. Sampling frame
18. Skewness
19. Histograms
20. Independent and dependent variable
21. Descriptive vs analytical research
22. Simulation research
23. Hypothesis



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