

MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: PATHOLOGY AND MICROBIOLOGY**

(OLD/NEW REGULATION)

Wednesday, June 08, 2005

Time: 3 Hrs.

Max. Marks: 80

- ✍ Answer section A and section B in TWO separate answer books.
✍ Draw labelled diagrams wherever appropriate.

SECTION 'A': PATHOLOGY: 40 MARKS

1. Define atherosclerosis. Discuss the predisposing factors and complications of atherosclerosis. (2+3+3 = 8 marks)
2. Explain the process of fracture healing and add a note on factors influencing fracture repair. (4+3 = 7 marks)
3. Write short notes on any FIVE:
 - 3A. Haemophilia.
 - 3B. Complications of diabetes mellitus.
 - 3C. Differences between benign and malignant tumours.
 - 3D. Etiology of peptic ulcers.
 - 3E. Morphology of lepromatous leprosy.
 - 3F. Fate of a thrombus.(5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Describe the structure, laboratory diagnosis and prophylaxis of Hepatitis B virus. (3+3+2 = 8 marks)
5. Define and classify sterilization. Describe in detail chemical methods of sterilization. (1+2+4 = 7 marks)
6. Write short notes on any FIVE of the following:
 - 6A. Spore.
 - 6B. Anaphylaxis.
 - 6C. Prophylaxis of tetanus.
 - 6D. Etiological agents of wound infections.
 - 6E. Cryptococcus neoformans.
 - 6F. Negri bodies.(5×5 = 25 marks)



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SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: PHARMACOLOGY**

(OLD/NEW REGULATIONS)

Thursday, June 09, 2005

Time: 1½ Hrs.

Max. Marks: 40

1. Mention any four antiepileptic drugs and four adverse effects. Explain the mechanism of action of any **ONE**.
(2+2+1 = 5 marks)
- 2A. Mention any **FOUR** beta adrenergic receptor blockers and mention **TWO** uses and **TWO** contraindications.
- 2B. Name **TWO** bronchodilators and explain the mechanism of action of any one of them.
(4+3 = 7 marks)
3. Define the following terms with one example for each:
- 3A. First pass metabolism
3B. Surprainfection
3C. Prodrug
3D. Plasma half life
3E. Synergism
(2×5 = 10 marks)
4. Give the pharmacological basis.
- 4A. Steroidal theory should not be stopped abruptly.
4B. Neostigmine is preferred in myasthenia gravis.
4C. Tetracycline should be avoided in pregnancy.
4D. Chlorpromazine induces parkinsonism.
4E. Propylthiouracil is used in hyperthyroidism.
(2×5 = 10 marks)
5. Name any two skeletal muscle relaxants and explain the mechanism of action of any one.
(3 marks)
6. Answer the following:
- 6A. Name two drugs which induce megaloblastic anemia.
6B. Name two drugs used in gout.
6C. Name one anabolic steroid and one indication.
6D. Name two drugs used in angina pectoris.
6E. Name **TWO** intravenous anesthetics.
(1×5 = 5 marks)



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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: KINESIOTHERAPEUTICS**

Friday, June 10, 2005

Time: 3 Hrs.

Max. Marks: 80

Answer any FOUR questions

1. Explain the role of patella in knee extension. Add a note on kinematics of tibiofemoral joint.
(10+10 = 20 marks)
2. Discuss the advantages and disadvantages of MMT. Explain grades of MMT. Explain the procedure for grading of Deltoid muscle.
(6+6+8 = 20 marks)
3. Name lower limb PNF patterns. Explain different techniques for strengthening and relaxation of muscles.
(6+7+7 = 20 marks)
4. What are the types of breathing exercises? Mention indication and contra indications for breathing exercises. Add a note on diaphragmatic breathing.
(6+4+4+6 = 20 marks)
5. Answer any **TWO**
 - 5A. Mechanical Traction.
 - 5B. Postural deviations of spine.
 - 5C. Two joint muscle.(10×2 = 20 marks)



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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: EXERCISE THERAPY II**

Friday, June 10, 2005

Time: 3 hrs.

Max. Marks: 80

- ✍ **Answer ALL questions.**
✍ **Illustrate with clear diagrams wherever applicable.**

1. Enumerate the articulating components in knee complex. Explain the arthro kinematics of tibio-femoral joint.
(4+6 = 10 marks)

2. What is co-ordinated movement? Mention the causes for inco-ordination. Explain Frenkel's exercises for lower limb inco-ordination.
(2+2+6 = 10 marks)

3. Write short notes.
 - 3A. Explain the types of precision grasps.
 - 3B. Explain in brief the biomechanics of scapulothoracic joint in terms of scapular position, joint mobility and stability.
 - 3C. Explain the analysis of posture from posterior view.
 - 3D. Describe the various stretching techniques for the pectoral muscles and iliotibial band.
 - 3E. Enumerate the various types of crutch gait training and explain any one.
 - 3F. Enumerate the indications and contra indications for postural drainage.
 - 3G. Describe the technique for testing MMT of muscles around hip joint.
 - 3H. Enumerate the indications and contraindications of spinal traction.(5×8 = 40 marks)

4. Answer the following questions briefly.
 - 4A. Define cadence and walking velocity.
 - 4B. Enumerate four basic techniques of PNF.
 - 4C. List out the various techniques of joint mobilization.
 - 4D. Mention the phases of gait cycle and their sub divisions.
 - 4E. Enumerate grades of mobilization.
 - 4F. Enumerate 2 uses of prone kneeling.
 - 4G. What is Ober's test?
 - 4H. Classify breathing exercises.
 - 4I. Write down the Mac Queen regimen of 10 RM for PRE's.
 - 4J. Enumerate the types of resistances that can be used in strengthening.(2×10 = 20 marks)



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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: ELECTROTHERAPY****(NEW REGULATION)**

Monday, June 13, 2005

Time: 3 Hrs.

Max. Marks: 80

Answer ALL the questions.

1. Write the treatment parameters of interferential currents. Detail the pain relief mechanism of interferential currents. Mention any four adverse effects of the same.
(3+6+1 = 10 marks)
2. Mention the parameters of therapeutic ultrasound. Describe the effect of ultrasound on tissue inflammation and repair. Add a note on phonophoresis under the headings of definition and two commonly used drugs with indication.
(2+6+2 = 10 marks)
3. Write Short Notes on:
 - 3A. Physiology of nerve conduction with electrical stimulation.
 - 3B. Define electromagnetic induction. Describe the types of EMI.
 - 3C. Faradic Galvanic test and its significance in testing nerve muscle integrity.
 - 3D. Describe the physiological effects of superficial heat. Mention the different modalities of superficial heat.
 - 3E. Physiological effects of pulsed SWD.
 - 3F. PUVA therapy.
 - 3G. Describe any four dangers of IRR with the preventive measures.
 - 3H. Physiological effects of Cryotherapy.(5×8 = 40 marks)
4. Write brief answers:
 - 4A. Joules law.
 - 4B. Beat frequency.
 - 4C. Mention any four dangers of cryotherapy.
 - 4D. Transistor.
 - 4E. Mention the techniques of application of ultrasound.
 - 4F. Mention the laws governing electromagnetic induction.
 - 4G. Mention any two drugs for phonophoresis with its indications
 - 4H. Types of nerve injuries.
 - 4I. Grothus law.
 - 4J. Inverse square law.(2×10 = 20 marks)



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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2005**SUBJECT: PSYCHOLOGY**

(NEW REGULATION)

Tuesday, June 14, 2005

Time: 3 Hrs.

Max. Marks: 80

- ✂ Answer any **FOUR** questions from Section 'A' and any **FOUR** questions from Section 'B'
✂ All questions carry equal marks.

SECTION – 'A'

1. Define intelligence and discuss the contribution of Heredity and Environment in its development.
2. What is memory? Discuss the different forms of memory.
3. Define personality and discuss any one of the theories of personality development.
4. Define thinking and discuss the role of concepts and language in thinking.
5. Write short notes on any **TWO** of the following:
 - 5A. Forgetting.
 - 5B. Operant conditioning.
 - 5C. James-Lange Theory.

SECTION – 'B'

6. Discuss the areas that are considered important in the assessment of disability
7. Discuss components of Supportive Psychotherapy.
8. Discuss various types of Neurotic Disorder.
9. Define stress and discuss the sources of stress.
10. Write short notes on any **TWO** of the following.
 - 10A. Substance use disorders.
 - 10B. Classification of Mental Disorders.
 - 10C. Scope of clinical psychology.

