MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: PATHOLOGY AND MICROBIOLOGY
(COMMON FOR BOTH OLD & NEW REGULATION)
Thursday, December 10, 2009

Time: 10:00-13:00 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 inflammation. Describe the cellular events in acute inflammation.

(1+7 = 8 marks)

2. Compare the process of wound healing by primary intention. Differentiate primary and secondary wound healing.

(5+2 = 7 marks)

3. Write short notes on:

3A. Fate of a thrombus

3B. Myocardial infarction

3C. Bronchial Asthma

3D. Viral hepatitis B

3E. Idiopathic thrombocytopenic purpura

(5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Define and classify immunity. Explain innate immunity.

(1+2+4 = 7 marks)

5. Describe bacterial cell in detail.

(8 marks)

6. Write short notes on any **FIVE**:

6A. Serological tests for syphilis.

6B. Autoclave.

6C. Laboratory diagnosis of diphtheria.

6D. Prophylaxis of rabies.

6E. Cryptococcal meningitis.

6F. Influenza Virus.

(5×5 = 25 marks)

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SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: PHARMACOLOGY
(COMMON FOR BOTH OLD & NEW REGULATIONS)
Friday, December 11, 2009

Time: 10:00-11:30 Hrs.   Max. Marks: 40

1. Enumerate three different classes of β-adrenergic receptor blockers. Explain the mechanism of antihypertensive action of β-blockers.

                                                                 (3+2 = 5 marks)

2A. Mention four non-steroidal anti-inflammatory drugs. Give two contraindications of any one.

2B. Give two examples of benzodiazepines and two uses.

                                                                 (3+2 = 5 marks)

3A. Name two insulin preparations and two adverse effects.

3B. Explain the effects of prednisolone on carbohydrate, fat protein metabolism.

                                                                 (2+3 = 5 marks)

4. Define the following terms with an example:

4A. Chemotherapeutic agent

4B. Mucolytics

4C. Fibrinolytics

4D. Competitive antagonism

4E. Synergism

                                                                 (2×5 = 10 marks)

5. Explain the pharmacological basis for the following:

5A. Phenytoin in Grand mal epilepsy

5B. Nitrates in Angina pectoris

5C. Salbutamol in Bronchial asthma

5D. Spironolactone in CCF

5E. Lignocaine as local anaesthetic

                                                                 (2×5 = 10 marks)

6. Answer the following:

6A. Define therapeutic index.

6B. Define expectorants.

6C. Antidote in organophosphorous compound poisoning.

6D. Selective serotonin reuptake inhibitors.

6E. Drugs used in Lepra-reactions.

                                                                 (1×5 = 5 marks)

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1. **Essay Questions:**

1A. Define faradic current. What are the characteristic features of surged faradic current? Describe four physiological and therapeutic effects of surged faradic currents.

(1+1+4+4 = 10 marks)

1B. Mention the parameters of therapeutic short wave diathermy. List any two absolute contraindications for shortwave diathermy with reason. Describe polar and non polar effects of shortwave diathermy.

(2+4+4 = 10 marks)

2. **Short Notes:**

2A. Mention the types of TENS with parameters.

(5 marks)

2B. Write a short note on Lewis hunting reaction and mention four modes of application of Cryotherapy.

(3+2 = 5 marks)

2C. Physical properties of LASER and write a note on cellular effects of LASER.

(5 marks)

2D. Explain the production of UVR.

(5 marks)

2E. Describe the properties of high frequency currents.

(5 marks)

2F. Write a note on pain modulation effects of Interferential currents.

(5 marks)

2G. Write a brief note on Thermionic valves.

(5 marks)

2H. Describe the therapeutic effects of PSWD.

(5 marks)

3. **Brief Answers:**

3A. Ohm law.
3B. Define self induction.
3C. Melting point of wax and paraffin wax.
3D. Dielectric constant.
3E. Mention any two chemicals used for iontopheresis in hyperhydrosis.
3F. Eddy's current.
3G. Parameters of microwave diathermy.
3H. Mention four diagnostic tests using low frequency current.
3I. Any two coupling agent for application of ultrasound.
3J. Diagram of mutual induction circuits.

(2×10 = 20 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2009

SUBJECT: EXERCISE THERAPY II
(NEW REGULATION)

Monday, December 14, 2009

Time: 10:00-13:00 hrs.   Max. Marks: 80

✍ **Answer ALL the questions.**

1.   **Essay:**

1A.   Enumerate the phases of gait. Discuss the determinants of Gait.

(3+7 = 10 marks)

1B.   Define coordination. Enumerate causes of in-coordination. Discuss Frenkel's exercise.

(2+3+5 = 10 marks)

2.   **Short notes:**

2A.   Explain Hold-relax and contract relax with an example.

2B.   Discuss static stabilizers of Knee joint.

2C.   Indications and contraindications of postural drainage.

2D.   Discuss Precrutch training.

2E.   MRC grading.

2F.   Discuss role of rotator cuff muscles in GH stabilization.

2G.   Lumbo-Pelvic Rhythm.

2H.   Discuss Delorme muscle strengthening protocol.

(5×8 = 40 marks)

3.   **Brief answer:**

3A.   Functional position of Wrist and Hand.

3B.   Contraindications for joint mobilization.

3C.   Concave-Convex Rule.

3D.   Enumerate effects of spinal traction.

3E.   Types of Inspiratory breathing exercises.

3F.   List out components of D1 and D2 flexion for upper-extremity.

3G.   Subtalar joint axis.

3H.   Define Trick movements.

3I.   Metatarsal break.

3J.   Define Tenodesis.

(2×10 = 20 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2009
SUBJECT: PSYCHOLOGY
(NEW REGULATION)
Tuesday, December 15, 2009

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✎   Answer any FOUR questions from Section 'A' and any FOUR questions from Section 'B'.

✎   All question carry equal marks.

SECTION – A

1. Outline Piaget's theory of cognitive development.

2. Define intelligence and discuss the nature and nurture controversy in determining intelligence.

3. Elaborate on any two theories of attitude formation.

4. Define thinking and discuss the role of language and concepts in thinking.

5. Write briefly on any **TWO** of the following:

5A. Experimental method.

5B. Difference between classical and operant conditioning.

5C. Social influence.

SECTION – B

6. Describe any two methods of study in clinical psychology, highlighting their merits and demerits.

7. Outline the management of crisis reaction.

8. Enumerate on Beck's approach to cognitive therapy.

9. Discuss any two behavior therapy techniques and indicate how it can be utilized in a health science setting.

10. Write briefly on any **TWO** of the following:

10A. Process of counseling.

10B. Assessment of personality.

10C. Stress related emotions.