MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2008

SUBJECT: PATHOLOGY AND MICROBIOLOGY
(COMMON FOR BOTH OLD & NEW REGULATION)

Monday, June 09, 2008

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 myocardial infarction. Enumerate the risk factors and clinical features of myocardial infarction.

(1+4+3 = 8 marks)

2.   Define shock. What are the types of shock? Describe the pathogenesis of septic shock.

(1+2+4 = 7 marks)

3.   Write short notes on:
3A. Hemolytic anemias
3B. Primary tuberculosis
3C. Chemotaxis
3D. Rheumatoid Arthritis
3E. Complications of Diabetes

(5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4.   Name the etiological agents causing sexually transmitted diseases. Describe the laboratory diagnosis of syphilis.

(2+6 = 8 marks)

5.   Define and classify sterilization. Explain sterilization by dry heat method

(1+2+4 = 7 marks)

6.   Write short notes on any FIVE of the following.
6A. Atopy
6B. Vaccines
6C. Laboratory diagnosis of HIV infection
6D. Leprosy
6E. Sources of infection.
6F. Gas gangrene.

(5×5 = 25 marks)

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MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2008

SUBJECT: PHARMACOLOGY
(COMMON FOR BOTH OLD & NEW REGULATIONS)
Tuesday, June 10, 2008

Time: 1½ Hrs.   Max. Marks: 40

1.   Name two oral antidiabetic drugs acting through different mechanisms and one adverse effect of each.

                                                                                          (3+1 = 4 marks)

2.   Mention the drug of choice for the following conditions:
2A.   Organophosphorous poisoning
2B.   Anaphylactic shock
2C.   Status epilepticus
2D.   Morphine poisoning
2E.   Acute attack of angina

                                                                                          (1×5 = 5 marks)

3.   Name two local anaesthetics. Mention two methods of inducing local anaesthesia with a clinical condition for each.

                                                                                          (2+2+2 = 6 marks)

4.   Mention two uses of:
4A.   Ciprofloxacin
4B.   Enalapril
4C.   Propranolol
4D.   Ampicillin
4E.   Prednisolone

                                                                                          (2×5 = 10 marks)

5.   Explain the pharmacological basis:
5A.   Linctus codeine is contraindicated in productive cough.
5B.   Multidrug therapy in tuberculosis.
5C.   Low dose aspirin in post myocardial infarction patients.
5D.   Combination of L-dopa and carbidopa in Parkinsonism.
5E.   Frusemide in acute pulmonary edema.

                                                                                          (2×5 = 10 marks)

6A.   Name the two drugs present in the combined oral contraceptive pill preparation.
6B.   Mention two uses of sodium valproate and one adverse effect.

                                                                                          (2+(2+1) = 5 marks)

MANIPAL UNIVERSITY

SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2008

SUBJECT: EXERCISE THERAPY II
(NEW REGULATION)

Wednesday, June 11, 2008

Time: 3 hrs.   Max. Marks: 80

1. **Essay:**

1A. Describe the structure of cervical spine and its stability and mobility functions.

1B. Definition of co-ordination. Explain the principles and techniques of Frenkel exercises.

$(10 \times 2 = 20 \text{ marks})$

2. **Short Essay:**

2A. Mention five differences in open and closed Kinematics chain exercises.

2B. Advantages and Disadvantages of walking aids.

2C. Visco – elastic Properties of Tendon and Muscle.

2D. Types of muscle action.

2E. Describe the ligaments and movements of S-I joint.

2F. MRC Grading and its advantages.

2G. Describe the Hip, Knee and Ankle joint in Sagittal plane analysis in stance phase of gait cycle.

2H. Describe the techniques used in PNF.

$(5 \times 8 = 40 \text{ marks})$

3. **Short answer:**

3A. Types of Prehension.

3B. Mention postural deviation of knee joint.

3C. Repetition Maximum.

3D. Newton's law of acceleration.

3E. Squintting of patella.

3F. Factors affecting muscle function.

3G. Index of insall and salviti.

3H. Carrying angle.

3I. Uses of spinal traction.

3J. Define Roll and Slide.

$(2 \times 10 = 20 \text{ marks})$

MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2008
SUBJECT: ELECTROTHERAPY
(NEW REGULATION)

Thursday, June 12, 2008

Time: 3 Hrs.   Max. Marks: 80

✍ **Answer all questions. Draw neat diagrams wherever appropriate.**

1. **Essay:**

1A. Discuss Electrical stimulation of Nerves. What is Accommodation? What are the effects of nerve stimulation? What are effects of frequency of stimulation? What are the factors influencing strength of contraction?

(1+2+3+3+1= 10 marks)

1B. What are the therapeutic uses of SWD?

(10 marks)

2. **Brief answers:**

2A. Discuss Resting membrane potential of nerves.

2B. Briefly explain Electromagnetic Induction.

2C. What are the Dangers of IRR?

2D. Discuss the principles of Laser Therapy.

2E. Briefly explain Hydrocollator packs.

2F. Briefly explain the properties and production of microwave radiation with a schematic of MWD apparatus.

2G. What are the methods of TNS application?

2H. Discuss erythema as a physiological effect of UVR.

(5×8 = 40 marks)

3. **Short answers:**

3A. Define ampere.

3B. Mention five uses of ice therapy.

3C. Define farad.

3D. Given the average E_1 of the lamp, how do you calculate the duration of E_2, E_3 and E_4 doses.

3E. Define Joule's law.

3F. Give the percentage transmission of aquasonic gel and distilled water.

3G. What is spasticity?

3H. What is an electric heating pad?

3I. Define Rheobase.

3J. Define Wave length.

(2×10 = 20 marks)

MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2008
SUBJECT: PSYCHOLOGY
(NEW REGULATION)

Friday, June 13, 2008

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. Discuss the genetic and environmental influences on intelligence.

2. What is Classical Conditioning and how does it differ from Operant Conditioning?

3. What is conformity? Write in brief on social influence.

4. Define cognition and discuss Piaget's stages of cognitive development.

5. Write briefly on **TWO** of the following:
5A. Moral development.
5B. Behavioural theory of personality.
5C. Physical development of adolescents.

SECTION – B

6. Discuss different perspectives of normality and abnormality.

7. What are cognitive therapies? Discuss different approaches of this therapy.

8. Outline the principles of client-centered psychotherapy.

9. Discuss the learning and cognitive models of mental disorders.

10. Write briefly on **TWO** of the following:
10A. Survey method.
10B. Bipolar affective disorder.
10C. Assessment of disability.

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