

MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2007

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

Thursday, June 07, 2007

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. Describe the cellular events in acute inflammation. (8 marks)

2. Define fracture. Describe the types of fracture. Describe in detail the process of fracture healing. (1+2+4 = 7 marks)

3. Write short notes on
 - 3A. Gastric ulcers.
 - 3B. Fate of a thrombus.
 - 3C. Bronchiectasis.
 - 3D. Idiopathic thrombocytopenic purpura.
 - 3E. Types of Aneurysms.(5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Define and classify immunity. Describe in detail acquired immunity. (1+2+5 = 8 marks)

5. Mention the etiological agent of tuberculosis. Describe the pathogenesis and prophylaxis of pulmonary tuberculosis. (1+3+3 = 7 marks)

6. Write short notes on any **FIVE** of the following:
 - 6A. Prophylaxis of poliomyelitis
 - 6B. Bacterial filters
 - 6C. Clostridium perfringens
 - 6D. Candida albicans
 - 6E. Bacterial cell wall.
 - 6F. Robert Koch(5×5 = 25 marks)



MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2007
SUBJECT: EXERCISE THERAPY II
(NEW REGULATION)
Saturday, June 09, 2007

Time: 3 hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

1. Explain the articular surfaces, ligaments, axis, movements and the muscles producing the movements of subtalar joint. Enumerate the difference between open and closed kinematic chain movements of subtalar joint.

(7+3 = 10 marks)

2. List out the indications, precautions and contraindications of stretching. Explain different types of stretching procedures. Write a short note on physical agents used during stretching procedures.

(3+4+3 = 10 marks)

3. Write brief answer:

- 3A. Therapeutic effects of spinal traction.
- 3B. Metatarsal break and windlass mechanism.
- 3C. Unilateral stance mechanism in hip joint.
- 3D. Mobility and stability in lumbar spine.
- 3E. Describe the assessment of posture.
- 3F. Determinants of gait.
- 3G. Arthrokinematics and concave-convex rule.
- 3H. Indications and contraindications in postural drainage.

(5×8 = 40 marks)

4. Short answers:

- 4A. Repetition maximum.
- 4B. Hold relax.
- 4C. Temporal variables in gait.
- 4D. Muscular adaptations due to resistance exercise.
- 4E. Two principles in PNF.
- 4F. Screw home mechanism.
- 4G. Ligaments of the wrist joint.
- 4H. Contraindications for joint mobilization.
- 4I. Viscoelastic property of a connective tissue.
- 4J. Facet joint orientation in the cervical and lumbar spine.

(2×10 = 20 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2007****SUBJECT: ELECTROTHERAPY
(NEW REGULATION)**

Monday, June 11, 2007

Time: 3 Hrs.

Max. Marks: 80

Answer ALL the questions.

1. Essay questions:

- 1A. Define constant galvanism. Describe the polar and non-polar effects of constant galvanism. Mention any two dangers and its precautions.
- 1B. Define ultrasound therapy. Explain in detail the physiological and therapeutic effects of ultrasound therapy.

(10×2 = 20 marks)

2. Short notes:

- 2A. Earth shock and its preventive measures.
- 2B. Electro physiology of nerve conduction.
- 2C. Physiological effects of LASER.
- 2D. How does the physiological effects of SWD and PSWD differ from each other?
- 2E. Physiological effects of heat and its therapeutic uses.
- 2F. Physiology of pain modulation with IFT.
- 2G. Various forms of biofeedback for control of muscle activity.
- 2H. PUVA therapy.

(5×8 = 40 marks)

3. Brief answers:

- 3A. Define reverse piezoelectric effect.
- 3B. Define Ionotophoresis.
- 3C. Capacitor.
- 3D. Define eddy current.
- 3E. What is Nerve accommodation?
- 3F. E3 dose in UVR therapy.
- 3G. Define Lewis hunting reaction.
- 3H. Self Induction.
- 3I. Electromagnetic spectrum- diagrammatic illustration.
- 3J. Unstable Cavitation and its implication.

(2×10 = 20 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2007****SUBJECT: PSYCHOLOGY
(NEW REGULATION)**

Tuesday, June 12, 2007

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 Psychology. Describe the scope and branches of psychology.
2. Define learning and explain different types of conditioning with suitable example.
3. What is stress? Describe the sources of stress and ways of coping.
4. Describe different stages of cognitive development.
5. Write briefly on any **TWO** of the following:
 - 5A. Crisis reaction.
 - 5B. Prejudice and discrimination.
 - 5C. Two factor theory of emotion.

SECTION – B

6. Discuss the oriental and Indian concept of mental health and illness.
7. Describe various models of mental disorder with emphasis on the cognitive model.
8. What are the different types of neurotic disorders? Explain phobic disorder in detail.
9. What is psychotherapy? Outline various forms of Psychotherapy.
10. Write briefly on any **TWO** of the following:
 - 10A. Assessment of personality.
 - 10B. Stress and Illness.
 - 10C. Contingency management.

