

**MANIPAL UNIVERSITY****SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2009****SUBJECT: PATHOLOGY AND MICROBIOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATION)**

Monday, June 01, 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 leukemia. Classify acute leukemias. Describe the clinical features of acute leukemia.  
(1+3+4 = 8 marks)
2. Tabulate the differences between benign and malignant tumors.  
(7 marks)
3. Write short notes on:
  - 3A. Shock
  - 3B. Goitre
  - 3C. Malignant melanoma
  - 3D. Emphysema
  - 3E. Wound healing by primary intention.(5×5 = 25 marks)

**SECTION 'B': MICROBIOLOGY: 40 MARKS**

4. List the etiological agents causing meningitis. Describe the laboratory diagnosis of acute bacterial meningitis.  
(2+6 = 8 marks)
5. Define nosocomial infections; Mention the important nosocomial pathogens. Write briefly on the prevention of nosocomial infections.  
(1+2+4 = 7 marks)
6. Write short notes on any FIVE:
  - 6A. Laboratory diagnosis of HIV infection.
  - 6B. Hepatitis B viral markers
  - 6C. Bacterial flagella
  - 6D. Dermatophytes
  - 6E. Robert Koch
  - 6F. Anaphylaxis.(5×5 = 25 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2009**

**SUBJECT: PHARMACOLOGY**  
**(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Tuesday, June 02, 2009

Time: 10:00-11:30 Hrs.

Max. Marks: 40

- 1A. Mention four systemic routes of drug administration.
- 1B. Mention two advantages and two disadvantages of oral over parenteral route of drug administration.
- (1+1+1= 3 marks)
2. Classify  $\alpha$  adrenergic blockers with an example for each class.
- (3 marks)
3. Write two uses and two adverse effects of the following drugs:
- 3A. Ciprofloxacin
- 3B. Penicillins
- 3C. Propranolol
- 3D. Phenytoin
- 3E. ACE inhibitors
- (2×5 = 10 marks)
- 4A. Define haematinics. Mention two different classes of haematinics and write the adverse effects of any one of them.
- 4B. Mention three purified insulin preparations and write advantages of these over conventional preparations.
- 4C. List two uses and two adverse effects of glucocorticoids.
- (4+4+2 = 10 marks)
- 5A. Name two natural and two synthetic opioids.
- 5B. Write two therapeutic uses with the basis for their use.
- 5C. Mention one contraindication with rationale for the use of opioid.
- (2+4+2 = 8 marks)
6. Write briefly on:
- 6A. Thiazides
- 6B. Ibuprofen
- 6C. Amlodipine
- (2+2+2 = 6 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009**

**SUBJECT: EXERCISE THERAPY II**  
**(NEW REGULATION)**

Wednesday, June 03, 2009

Time: 10:00-13:00 hrs.

Max. Marks: 80

**1. Essay Questions:**

- 1A. Describe the "SAID" principle in muscle strengthening. Add a note on muscle reeducation program for quadriceps.  
(5+5 = 10 marks)
- 1B. Define postural drainage. Describe the method of postural drainage for the right lower lobe segments with diagrams.  
(2+8 = 10 marks)

**2. Write short notes on:**

- 2A. Frenkel's exercises.  
2B. Determinants of gait.  
2C. Postural abnormalities in vertebral column.  
2D. Abnormal breath sounds.  
2E. Extensor mechanism of digits.  
2F. Scapulohumeral rhythm.  
2G. Adjuvant modalities used in stretching.  
2H. Any five Principles of Proprioceptive neuromuscular facilitation.  
(5×8 = 40 marks)

**3. Brief answer:**

- 3A. What is 10 RM?  
3B. What is windlass mechanism?  
3C. Define kinetics and kinematics.  
3D. What is reciprocal inhibition?  
3E. What is passive insufficiency?  
3F. What are the types of traction?  
3G. What is a trick movement?  
3H. Mention any two contraindications of joint mobilization.  
3I. Mention the types of walking aids.  
3J. Name the rotator cuff muscles.  
(2×10 = 20 marks)





**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009**

**SUBJECT: ELECTROTHERAPY**  
**(NEW REGULATION)**

Thursday, June 04, 2009

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1A. How heat is produced in the tissue by Short Wave Diathermy? Explain different method of application of SWD.

(3+7 = 10 marks)

1B. Explain how an impulse get generated by an electrical stimulus. What are the indications for faradic type current?

(5+5 = 10 marks)

**2. Write Short Answers:**

2A. Explain the factors determining the capacitance of a condenser.

2B. Explain the types and production of Infra Red Radiation.

2C. Explain physiological effects of UVR.

2D. Explain normal and abnormal strength duration curves with help of diagram.

2E. Explain the therapeutic uses of laser.

2F. Explain the pain modulation by TENS.

2G. Explain construction and working of a Thermionic valves.

2H. Physiological effect of Heat.

(5×8 = 40 marks)

**3. Answer briefly:**

3A. Define beat frequency.

3B. Function of a Choke coil.

3C. Define piezoelectric effect.

3D. Effects of Anodal Galvanism.

3E. What is Lewis hunting reaction?

3F. Define Ohm's law.

3G. Define inverse square law.

3H. What is inductive reactance?

3I. What are the properties of Magnet?

3J. Define Accommodation of electrical stimulus.

(2×10 = 20 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2009**

**SUBJECT: PSYCHOLOGY**  
**(NEW REGULATION)**

Friday, June 05, 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 questions carry equal marks.

**SECTION – A**

1. Define thinking. How does the language and concepts influence thinking?
2. What is Emotion? What are the different components of emotion?
3. Define the concept of 'IQ'. Briefly explain the most widely used intelligence tests.
4. Explain different types of memory and the process of memory formation.
5. Write briefly on any **TWO** of the following:
  - 5A. Physical development of early childhood.
  - 5B. Kohlberg's theory of moral development.
  - 5C. Prejudice and discrimination.

**SECTION – B**

6. Define Clinical Psychology and discuss its scope and current status.
7. Discuss the oriental and Indian concept of mental health.
8. Outline various models of mental disorders.
9. What is Psychotherapy? Discuss the indications and techniques of any one type of psychotherapy.
10. Write briefly on any **TWO** of the following:
  - 10A. Obsessive Compulsive disorder.
  - 10B. Schizophrenia.
  - 10C. Family therapy.

