

# MANIPAL UNIVERSITY

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

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

Wednesday, December 10, 2008

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. Mention the cardinal signs of inflammation. Enumerate the cellular events in acute inflammation. Describe the steps and mechanism of phagocytosis. (1+2+5 = 8 marks)
  
2. Define anemia. Classify anemia based on the causes of anemia. What are the clinical features of vitamin B12 deficiency anemia? (1+4+2 = 7 marks)
  
3. Write short notes on:
  - 3A. Healing of fracture including factors influencing it.
  - 3B. Clinical features and types of Diabetes mellitus.
  - 3C. Predisposing factors and complications of atherosclerosis.
  - 3D. Ghon complex.
  - 3E. Modes of spread of malignant tumors with examples. (5×5 = 25 marks)

### SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Define and classify sterilization. Explain in detail moist heat sterilization. (1+2+5 = 8 marks)
  
5. Define and classify immunity. Explain acquired immunity. (1+2+4 = 7 marks)
  
6. Write short notes on any **FIVE**.
  - 6A. Candidiasis.
  - 6B. Bacterial capsule.
  - 6C. Bacteria causing gastro intestinal infections.
  - 6D. Prophylaxis of poliomyelitis.
  - 6E. Koch's postulates.
  - 6F. Post streptococcal sequelae. (5×5 = 25 marks)



**MANIPAL UNIVERSITY****SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2008****SUBJECT: PHARMACOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Thursday, December 11, 2008

Time: 10.00-11.30 Hrs.

Max. Marks: 40

1. Define the following with examples
- 1A. Bioavailability  
1B. Enzyme induction  
1C. Iatrogenic disease
- (2×3 = 6 marks)
- 2A. Mention two skeletal muscle relaxants belonging to different groups. Give their adverse effects.  
2B. Enlist the therapeutic uses of adrenaline.  
2C. Mention one short acting and one long acting non-steroidal anti-inflammatory drugs with two uses for any one.  
2D. Name two drugs used in schizophrenia and give two neurological adverse effects produced by them.  
2E. Mention four drugs for treatment bronchial asthma.
- (2×5 = 10 marks)
- 3A. Define what is an antibiotic. Give one examples each for anti-cancer and anti-tuberculosis antibiotics.  
3B. Write the adverse effect of tetracycline.  
3C. Enlist commonly used anti-malarial drugs and write two adverse effects for any one.  
3D. Write the therapeutic uses of ampicillin.
- (2×4 = 8 marks)
- 4A. How the exercise programme can influence drug therapy? Explain with suitable examples.  
4B. Mention three different groups of anti-hypertensive drugs with an example for each group.  
4C. Write briefly on:  
i) Prednisolone                      ii) Xylocaine
- (3+3+(3+3) = 12 marks)
- 5A. Explain the pharmacological basis for the use of levodopa and carbidopa.  
5B. Name a condition where atropine is used and explain the basis for its use.
- (2+2 = 4 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2008**  
**SUBJECT: ELECTROTHERAPY**

Saturday, December 13, 2008

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

**PART – A**

- 1A. Write in detail the therapeutic uses of faradic stimulation.
- 1B. Write in brief about the production of high frequency currents from short wave diathermy and explain the physiological effects of the same.

(10+(3+7) = 20 marks)

**PART – B**

- 2A. Explain with a diagram the mechanism by which interferential currents are produced.
- 2B. Physiological effects of LASER.
- 2C. Choke coil – make up and use.
- 2D. Classify and add a brief note on the types of TENS.
- 2E. Contraindications of cryotherapy.
- 2F. Uses of ultrasound.
- 2G. Electro magnetic Induction.
- 2H. Indications and contraindications of Infra red radiation.

(5×8 = 40 marks)

**PART – C**

- 3A. What are eddy currents?
- 3B. Inverse square law.
- 3C. Cosine law.
- 3D. Grothus law.
- 3E. What is Lewis hunting reaction?
- 3F. What is the drug used in iontophoresis to treat hyperhidrosis?
- 3G. What is phonophoresis?
- 3H. Mention the wavelength of UVB and UVC.
- 3I. Pulse duration of faradic and galvanic current.
- 3J. Define cavitations in ultrasound.

(2×10 = 20 marks)





**MANIPAL UNIVERSITY****SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2008****SUBJECT: PSYCHOLOGY**

Monday, December 15, 2008

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 Psychology. Discuss the scope and branches of psychology.
2. Discuss various problem solving methods.
3. Define emotion. Discuss the concept of Emotional Intelligence.
4. Discuss the role of heredity and environment on Intelligence.
5. Write briefly on any **TWO** of the following:
  - 5A. Styles of normal personality.
  - 5B. Attribution.
  - 5C. Piaget's model of cognitive development.

**SECTION – B**

6. Mention different methods of clinical psychology and discuss the merits and demerits of survey method.
7. Discuss the clinical features and etiological aspects of depression.
8. Outline various types of psychological assessment. Discuss briefly the intelligence assessment.
9. Describe the goals and process of counseling.
10. Write briefly on any **TWO** of the following:
  - 10A. Shaping.
  - 10B. Contingency management.
  - 10C. Group therapy.

