

**MANIPAL ACADEMY OF HIGHER EDUCATION**

(Deemed University)

**SECOND YEAR B.P.T. DEGREE EXAMINATION – AUGUST 2006****SUBJECT: PATHOLOGY AND MICROBIOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATION)**

Wednesday, August 16, 2006

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. Discuss the process of healing by second intention. Mention the factors which influence wound healing. (4+4 = 8 marks)
  
2. Mention the causes of shock. Discuss the pathogenesis of septic shock. (3+4 = 7 marks)
  
3. Write short notes on any FIVE.
  - 3A. Granuloma.
  - 3B. Squamous cell carcinoma.
  - 3C. Etiology of peptic ulcer.
  - 3D. Primary tuberculosis.
  - 3E. Difference between benign and malignant tumours.
  - 3F. Haemophilia.

(5×5 = 25 marks)**SECTION 'B': MICROBIOLOGY: 40 MARKS**

4. Define infection. Discuss various sources on infection. Add a note on carriers. (1+4+3 = 8 marks)
  
5. Name medically important clostridia. Describe pathogenesis and laboratory diagnosis of gas gangrene. (2+3+2 = 7 marks)
  
6. Write short notes on any FIVE.
  - 6A. Dermatophytes.
  - 6B. Pathogenesis of rabies.
  - 6C. Antimicrobial susceptibility tests.
  - 6D. Chemical disinfectants.
  - 6E. Anaphylaxis.
  - 6F. Significant bacteruria.

(5×5 = 25 marks)

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**SECOND YEAR B.P.T. DEGREE EXAMINATION – AUGUST 2006****SUBJECT: PHARMACOLOGY  
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Thursday, August 17, 2006

Time: 1½ Hrs.

Max. Marks: 40

1. Classify non-opioid analgesics. Describe two pharmacological actions of any one NSAID along with the corresponding therapeutic applications (uses). Add a note on the differences between opioid and non-opioid analgesics.  
(4+(2+2)+2 = 10 marks)
- 2A. Write the advantages and disadvantages of sublingual route of drug administration. Give two examples.
- 2B. Define biotransformation of drugs. Explain two chemical reactions with an example for each.
- 2C. Enumerate two drugs used in bronchial asthma with the MOA of any one of them.  
(2+(1+1)+(1+1) = 6 marks)
- 3A. Enlist two drugs from different groups used in angina pectoris. Write pharmacological basis of using propranolol in angina pectoris.
- 3B. Explain two clinically useful pharmacological actions of atropine.
- 3C. Sulfonylureas are useful in NIDDM and not in IDDM. Explain.  
(2+(1+1)+(1+1) = 6 marks)
- 4A. Write briefly on intravenous anesthetics.
- 4B. Explain four uses of dexamethasone.
- 4C. Explain the M.O.A of digoxin in C.C.F. Add a note on adverse effect.  
(2+(½×4)+(1+1) = 6 marks)
- 5A. Write briefly on drug synergism.
- 5B. Write the MOA and uses of penicillin G.  
(3+(1+2) = 6 marks)
- 6A. Explain the uses and adverse effects of gentamicin.
- 6B. Write briefly on rifampicin.  
(3+3 = 6 marks)



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## SECOND YEAR B.P.T. DEGREE EXAMINATION – AUGUST 2006

### SUBJECT: EXERCISE THERAPY II

(NEW REGULATION)

Friday, August 18, 2006

Time: 3 hrs.

Max. Marks: 80

✍ Answer ALL questions. Illustrate with clear diagrams wherever applicable.

1. Explain in detail the arthrokinematics of the knee joint under the following sub captions: flexion/extension, locking/unlocking and axial rotation. (4+4+2 = 10 marks)
2. What is postural drainage? Mention the contraindications for postural drainage. Illustrate postural drainage with a diagram for all the broncho pulmonary segments of right lower lobe. (2+3+5 = 10 marks)
3. Write brief answers:
  - 3A. Explain the extensor mechanism of the digits. (5 marks)
  - 3B. Discuss the adjuncts of stretching. (5 marks)
  - 3C. Describe briefly about Pursed Lip Breathing and Glosso pharyngeal Breathing (2½+2½ = 5 marks)
  - 3D. Classify breath sounds and add a note on each. (5 marks)
  - 3E. Explain active and passive insufficiency with an example. (2½+2½ = 5 marks)
  - 3F. Explain gluteus medius and gluteus maximus gait. (2½+2½ = 5 marks)
  - 3G. Explain briefly the principles of Proprioceptive Neuromuscular facilitation. (5 marks)
  - 3H. Discuss the frontal and sagittal plane analysis of posture. (5 marks)
4. Short answers:
  - 4A. Mention the gadgets used for strengthening exercises.
  - 4B. What are the type of stretching?
  - 4C. Classify breathing exercises.
  - 4D. What are the types of muscle contraction?
  - 4E. What is windlass mechanism?
  - 4F. What are the possible locations of Bronchial breath sounds in the chest wall?
  - 4G. What is rhythmic stabilization?
  - 4H. Mention the types of walking aids.
  - 4I. Name any two anatomic pulleys.
  - 4J. What are the types of traction?

(2×10 = 20 marks)



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**SECOND YEAR B.P.T. DEGREE EXAMINATION – AUGUST 2006****SUBJECT: ELECTROTHERAPY****(NEW REGULATION)**

Saturday, August 19, 2006

Time: 3 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.****1. Essay questions:**

1A. Define constant Galvanism. Describe in detail the polar and non-polar effects of constant galvanic current. Add a note on iontophoresis.

(2+5+3 = 10 marks)

1B. Define UVR. Describe the physiological effects of UVR. Add a note on PUVA therapy.

(1+6+3 = 10 marks)

**2. Short answers:**

2A. Properties of high frequency currents.

2B. Pattern of heating of tissue with SWD.

2C. Skin impedance of low, medium and high frequency currents.

2D. Low TENS and the mechanism of pain modulation.

2E. Physiological effects of LASER.

2F. Non thermal physiological effects of ultrasound and its therapeutic uses.

2G. Potential dangers in microwave diathermy and its preventive measures.

2H. Production of non luminous IRR.

(5×8 = 40 marks)

**3. Brief answers:**

3A. Transformer.

3B. Galvanic rash.

3C. Eddy current.

3D. Chronaxie.

3E. Lewis hunting reaction.

3F. Electromagnetic spectrum with illustration.

3G. Micromassage.

3H. Motor point.

3I. Dielectric constant.

3J. E 3 dose in UVR therapy.

(2×10 = 20 marks)



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**SECOND YEAR B.P.T. DEGREE EXAMINATION – AUGUST 2006****SUBJECT: PSYCHOLOGY****(NEW REGULATION)**

Monday, August 21, 2006

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. Outline any two-personality theories and emphasize psychodynamic theory.
2. How do the bonds of attachment form and what are the origins of attachment?
3. How do we tend to explain others' behaviour and our own behaviour?
4. Describe clinical and testing methods and highlight their merits and demerits.
5. Write briefly on **TWO** of the following:
  - 5A. Group interaction.
  - 5B. Intelligence tests.
  - 5C. Creativity.

**SECTION – B**

6. Describe ICD – 10 and DSM – IV classification of mental disorders.
7. What are neurotic disorders? Discuss the types of neurotic disorders.
8. What is counseling? Describe the nature and goals of counseling.
9. Discuss the factors that help human growth and development.
10. Write briefly on **TWO** of the following:
  - 10A. Substance use disorders.
  - 10B. Desensitization.
  - 10C. Personality assessment.

