

## MANIPAL UNIVERSITY

## SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2013

SUBJECT: PATHOLOGY  
(NEW REGULATION)

Monday, June 10, 2013

Time: 10:00-11:30 Hrs.

Max. Marks: 40

1. Define neoplasia. How is neoplasia different from dysplasia and metaplasia? Explain the characteristic features of malignant tumors with suitable examples. Write a note on the prognosis of tumors.

(1+2+3+2 = 8 marks)

2. Describe the predisposing factors, clinical effects and complications of atherosclerosis.

(2+2+3 = 7 marks)

3. **Write short notes on:**

3A. Megaloblastic anaemia

3B. Osteomyelitis

3C. Bronchiectasis

3D. Types of necrosis with examples

3E. Clinical features and complications of Diabetes Mellitus

(5×5 = 25 marks)



## MANIPAL UNIVERSITY

SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2013

SUBJECT: MICROBIOLOGY  
(COMMON FOR OLD AND NEW REGULATION)

Wednesday, June 12, 2013

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer all questions. Draw diagrams wherever appropriate:

1. Discuss the mechanisms of autoimmunity. List the diseases involving multiple organs.  
(4+3 = 7 marks)
2. Explain the pathogenesis of Mycobacterium tuberculosis. Add a note on its laboratory diagnosis.  
(5+3 = 8 marks)
3. Write short notes on:
  - 3A. Pathogenesis of typhoid fever
  - 3B. Laboratory diagnosis of syphilis
  - 3C. Contributions of Robert Koch
  - 3D. Pathogenesis and prophylaxis of rabies
  - 3E. Mechanisms of innate immunity(5×5 = 25 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2013**

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

Friday, June 14, 2013

Time: 10:00-11:30 Hrs.

Max. Marks: 40

- 1A. Explain the mechanism of action of aspirin.
- 1B. Enumerate four commonly used NSAIDs other than aspirin and list any four therapeutic uses of NSAIDs. (2+4 = 6 marks)
2. Describe the mechanism of action and one therapeutic use of statins. (2 marks)
3. Enumerate two advantages and two disadvantages of intramuscular route of drug administration. (2 marks)
4. **Explain the basis for the following:**
- 4A. Levodopa is combined with carbidopa in the treatment of Parkinsonism
- 4B. Allopurinol is used in the management of chronic gout
- 4C. Corticosteroids should not be stopped abruptly after prolonged use
- 4D. Combination of drugs are used in the treatment of pulmonary tuberculosis
- 4E. Use of salbutamol in bronchial asthma (2×5 = 10 marks)
5. List three classes of anti HIV drugs with one example for each class. (3 marks)
6. **Explain the following terms with an example:**
- 6A. First pass metabolism
- 6B. Chemoprophylaxis
- 6C. Drug antagonism (2×3 = 6 marks)
7. Classify skeletal muscle relaxants with an example for each class. (3 marks)
8. Enumerate two anticholinergic drugs and two uses of any one of them. (2 marks)
9. Explain the mechanism of action of nitrates in angina. (2 marks)
10. Explain the mechanism of action and one therapeutic use of cotrimoxazole. (2 marks)
11. Enumerate two each drugs useful in epilepsy and peptic ulcer. (2 marks)





**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2013**  
**SUBJECT: ELECTROTHERAPY**  
**(COMMON FOR BOTH OLD AND NEW REGULATION)**

Monday, June 17, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**Answer all questions:**

**1. Essay questions:**

1A. Define strength duration curve with neat labelled diagrams.

(2+8 = 10 marks)

1B. Define minimal erythral dose. Explain the production of UVR. Add a note on PUVA therapy.

(2+4+4 = 10 marks)

**2. Write short notes on:**

2A. Physiology of pain

2B. Explain indications and contraindications for interrupted galvanic current.

2C. Physiological effects of LASER

2D. Precautions for earth shock

2E. Explain the different methods of application of cryotherapy.

2F. Describe the production of MWD.

2G. Explain the therapeutic effects of ultra sound therapy.

2H. Methods of application of IFT

(5×8 = 40 marks)

**3. Brief answers:**

3A. What is Low TENS?

3B. What is Actinotherapy?

3C. Mention the factors determining the capacity of capacitor.

3D. What is Cavitation?

3E. What is mutual induction?

3F. What is Russian currents?

3G. Indications for paraffin wax bath therapy.

3H. What is critical angle?

3I. List the types of LASER.

3J. Mention any four contraindication for IRR.

(2×10 = 20 marks)



# MANIPAL UNIVERSITY

## SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2013

### SUBJECT: BIOMECHANICS AND EXERCISE THERAPY – II (NEW REGULATION – 2010 BATCH)

Wednesday, June 19, 2013

Time: 10:00-13:00 hrs.

Max. Marks: 80

✍ Answer ALL questions.

#### SECTION – A: BIOMECHANICS

✍ Essay questions:

1. Describe in detail the kinetics and kinematics of knee joint.

(10 marks)

✍ Short notes:

2A. Discuss the role of ligaments in upper cervical spine.

2B. Explain the Glenohumeral rhythm.

2C. Determinants of gait

2D. Arches of the foot

(5×4 = 20 marks)

✍ Brief answers:

3A. What is angle of inclination?

3B. What is the composition of the intervertebral disc?

3C. What is windlass mechanism?

3D. What is trendelenburg gait?

3E. Name the phases of gait

(2×5 = 10 marks)

#### SECTION B: EXERCISE THERAPY II

✍ Essay questions:

4. Describe mobilization under the following:

i) Definition and grades of mobilization

ii) Indications and contraindications

iii) Describe one technique each to increase elbow range of motion.

(2+4+4 = 10 marks)

✍ Short notes:

5A. Principles of stretching

5B. Explain normal physiology of co-ordination

5C. Describe any two techniques of PNF

5D. Discuss principles of strengthening

(5×4 = 20 marks)

✍ Brief answers:

6A. Mention two indications and two contraindications of spinal traction.

6B. Define trick movement and give one example.

6C. What are the indications of functional reeducation?

6D. What is 1 RM (Repetitive Maximum)?

6E. Type of crutch to be used in Rheumatoid Arthritis and its rationale

(2×5 = 10 marks)





**MANIPAL UNIVERSITY**  
**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2013**

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

Friday, June 21, 2013

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**1. Choose the single best answer:**

- 1A. According to Freud, the id is governed by the
- i) Pleasure principle
  - ii) Reality principle
  - iii) Ego ideal
  - iv) Wellbeing principle
- 1B. What is the correct order of needs in Maslow's hierarchy?
- i) Physiological; esteem; safety; self-actualization; love and belonging
  - ii) Self-actualization; physiological; safety; love and belonging; esteem
  - iii) Self-actualization; safety; love and belonging; esteem; physiological
  - iv) Physiological; safety; love and belonging; esteem; self-actualization
- 1C. Illusions are
- i) Same as hallucinations
  - ii) Distortions of existing stimuli
  - iii) Because of poor attention
  - iv) Tricks played by others to confuse you
- 1D. Statistical approaches to abnormality define as "abnormal" those who
- i) Have lost touch with reality
  - ii) Are dangerous to self and others
  - iii) Deviate from typical or average patterns of behaviour
  - iv) Experiences delusions and hallucinations
- 1E. The distribution of IQ scores
- i) Follows bell curve
  - ii) Follows U curve
  - iii) Is skewed
  - iv) Follows S curve

(1×5 = 5 marks)

**2. Write definitions of any FIVE of the following:**

- 2A. James Lange theory of emotions
- 2B. Observation methods in psychology

- 2C. Operant conditioning
- 2D. Counselling
- 2E. Obsessive compulsive disorder
- 2F. Projective test
- 2G. Perception

(3×5 = 15 marks)

3. **Write short notes on any SIX of the following:**

- 3A. Humanistic psychotherapy
- 3B. Nature and scope of psychological assessment
- 3C. Clinical Psychology
- 3D. Hunger and thirst motivation
- 3E. Types of attention
- 3F. Binocular cues of vision
- 3G. Effects of stress
- 3H. Trait theories of personality
- 3I. Crisis reaction

(5×6 = 30 marks)

4. **Write essay on any TWO of the following:**

- 4A. What is behaviour therapy? Explain various types of behavioural techniques.
- 4B. What is illusion? Discuss various types of illusion.
- 4C. Discuss methods of psychology.

(15×2 = 30 marks)

