

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. R.R.T. & D.T**  
**DEGREE EXAMINATION – JUNE 2018**

**SUBJECT: PATHOLOGY**

(2010 REGULATION/BOT 209:2015 & 2011 SCHEME/2015 & 2010 SCHEME/BDT 201)

Thursday, June 21, 2018

Time: 10:00-11:30 Hrs.

Max. Marks: 40

- ✍ **Answer ALL questions.**
- ✍ **Illustrate your answers with diagrams wherever necessary.**

1. Classify anemia. Discuss the laboratory diagnosis of megaloblastic anemia.  
(2+5 = 7 marks)
  
2. Define inflammation. Mention five cardinal signs of inflammation. Discuss phagocytosis.  
(1+2+5 = 8 marks)
  
3. **Write short notes on:**
  - 3A. Mention the types and complications of diabetes mellitus
  - 3B. Rheumatoid arthritis
  - 3C. Etiology and clinical features of Bronchiectasis
  - 3D. Etiology and morphology of peptic ulcer
  - 3E. Gangrene

(5 marks × 5 = 25 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/B.Sc. RRT & DT**  
**DEGREE EXAMINATION – JUNE 2018**

**SUBJECT: MICROBIOLOGY**

(COMMON FOR 2010 REGULATION/BOT 208:2015 & 2011 SCHEME/2010 & 2015 SCHEME/2015 SCHEME/BDT 202)

Friday, June 22, 2018

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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 **Draw diagrams wherever appropriate.**

1. Describe the pathogenesis and laboratory diagnosis of human immunodeficiency virus infection.

(4+4 = 8 marks)

2. Describe the predisposing factors in urinary tract infections (UTI). Discuss the laboratory diagnosis of UTI.

(2+5 = 7 marks)

3. **Write briefly on:**

3A. Mechanism of type IV hypersensitivity

3B. Laboratory diagnosis of tuberculosis

3C. MRSA and its importance in hospital associated infections

3D. Moist heat sterilization above 100°C

3E. Bacterial flagella

(5 marks × 5 = 25 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./B.Sc. R.R.T. & D.T.**  
**DEGREE EXAMINATION – JUNE 2018**

**SUBJECT: PHARMACOLOGY**

(COMMON FOR 2010 REGULATION/BOT 207:2015 & 2011 SCHEME/2015 SCHEME/BDT 203)

Saturday, June 23, 2018

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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1. **Answer the following questions:**

- 1A. Mention two each advantages and disadvantages of intravenous route of drug administration.
- 1B. Mention three types of non-receptor mediated drug actions with an example for each.
- 1C. Classify skeletal muscle relaxants with an example for each class.

(2+3+3 = 8 marks)

2. **Define the following terms:**

- 2A. Plasma half life
- 2B. Potency

(1 mark × 2 = 2 marks)

3. **Explain the mechanism of action of the following drugs:**

- 3A. Digoxin
- 3B. Warfarin

(2 marks × 2 = 4 marks)

- 4A. List three first line drugs used in tuberculosis and describe the mechanism of action of any one of them.
- 4B. List two insulin preparations and mention two adverse effects of any one of them.
- 4C. Enumerate two corticosteroids and list their two uses and two adverse effects.

(3+2+3 = 8 marks)

5. **Mention two examples and two uses of the following classes of drugs:**

- 5A. Macrolides
- 5B. Alpha blockers
- 5C. H<sub>2</sub> blockers
- 5D. Beta lactam antibiotics
- 5E. Opioids

(2 marks × 5 = 10 marks)

6. Explain the pharmacological basis for combining levodopa with carbidopa for the treatment of parkinsonism.

(2 marks)

7. **Mention two drugs each used in the following conditions:**

7A. Congestive cardiac failure

7B. Bronchial asthma

7C. Insomnia

7D. HIV infection

7E. Angina pectoris

7F. Gout

(1 mark × 6 = 6 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**  
**SUBJECT: DEVELOPMENT ACROSS THE LIFE SPAN**  
**(2011 SCHEME)**

Monday, June 25, 2018

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Explain maturation and describe principles of maturation.

(2+ 8 = 10 marks)

2. Discuss the lifestyle issues of young adulthood related to the choice of spouse and family roles.

(10 marks)

3. **Short note:**

3A. Age related changes in the sensory system in late adult hood.

3B. Physical changes seen at puberty

3C. Explain different Life tasks of Young Adult Transition.

3D. Sociological influences on aging

(5 marks × 4 = 20 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**  
**SUBJECT: GENERAL PSYCHOLOGY – (BOT 206)**  
**(2015 SCHEME)**

Monday, June 25, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

- 1A. The method in which variables are controlled and manipulated to arrive at causal relationships
- a) Observational method                      b) Introspection  
c) Correlational method                      d) Experimental method
- 1B. The theory of emotion stating that emotional arousal is dependent on both physiological changes and cognitive interpretations is
- a) James Lange theory                      b) Schachter Singer theory  
c) Cannon Bard theory                      d) Opponent process theory
- 1C. Identify the one which is not a monocular cue
- a) Interposition                                  b) Accommodation  
c) Relative Size                                  d) Texture gradient
- 1D. At the top of Maslow's hierarchy of motives are
- a) Love and belonging.                      b) Esteem and self-esteem.  
c) Self-actualization.                      d) Safety and security
- 1E. The concept of traits is used to account for personal characteristics that are
- a) Situation specific                              b) Relatively permanent and enduring  
c) Shared by a group                              d) Biologically determined.

(1 mark × 5 = 5 marks)

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

- 2A. Introspection  
2B. Deductive reasoning  
2C. Reliability  
2D. Source trait  
2E. Non volitional attention  
2F. Attitude  
2G. Emotion

(3 marks × 5 = 15 marks)

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

- 3A. Schacter Singer theory of emotion  
3B. Principles of Perceptual Organization

- 3C. Any two nonverbal tests of intelligence
- 3D. Types of conflicts
- 3E. Factors influencing attention
- 3F. Differentiate aptitude and intelligence
- 3G. Factors influencing attitude
- 3H. Primary mental abilities
- 3I. Projective personality assessment

(5 marks × 6 = 30 marks)

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

- 4A. Explain laws of learning
- 4B. Discuss psychoanalytic approaches to personality
- 4C. What is memory? Discuss theories of memory formation

(15 marks × 2 = 30 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**

**SUBJECT: BIOMECHANICS AND KINESIOLOGY (BOT 201)**  
(2011 & 2015 SCHEME)

Tuesday, June 26, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- ✍ **Answer ALL the questions.**  
✍ **Draw diagram wherever necessary.**

✍ **Long Questions:**

1. Define force and its characteristics. Explain force systems with one example of each. Describe the method of determining the composition of two concurrent force acting at an angle of 30 degrees to each other at a common point by graphical methods.  
(5+5+10 = 20 marks)
2. Describe three kinds of muscle structures in human body. Explain the muscle fiber architecture.  
(10+10 = 20 marks)
3. **Write short notes on:**
  - 3A. Describe the anatomical stability of the shoulder joint.  
(10 marks)
  - 3B. Draw and label the pelvic girdle and describe the movements in pelvic joint.  
(5+5 = 10 marks)
  - 3C. Describe stance phase of gait cycle.  
(10 marks)
  - 3D. Draw and describe five types of synovial joint and its movements in each joint.  
(10 marks)





**MANIPAL ACADEMY OF HIGHER EDUCATION****SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018****SUBJECT: FOUNDATIONAL CONCEPT AND SKILLS IN OCCUPATIONAL THERAPY (BOT 202)  
(2015 SCHEME)**

Wednesday, June 27, 2018

Time: 10:00-13:00 Hrs.

Max. Marks 80

 **Answer ALL the questions.**

**Long Questions:**

1. Describe developmental changes seen during early and middle childhood.  
(10+10 = 20 marks)
2. Explain the purpose of activity analysis in occupational therapy. Describe the process of analyzing an activity for performance patterns and contexts.  
(5+7+8 = 20 marks)

**3. Short Notes:**

- 3A. Psychosocial theories of aging
- 3B. Strategies to maintain tissue integrity
- 3C. Limitations of medical model
- 3D. Explain the rehabilitation method of changing the task

(10 marks × 4 = 40 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**  
**SUBJECT: THERAPEUTIC ACTIVITIES AND EXERCISES**  
**(2011 SCHEME)**

Wednesday, June 27, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long Questions:**

1. Define therapeutic exercise. Explain the purposes, indications and contraindications of therapeutic exercise.

(3+7+5+5 = 20 marks)

2. Describe the traditional medical model and its influence on occupational therapy practice. Discuss the advantages and disadvantages of this model.

(10+5+5 = 20 marks)

3. **Write short notes on:**

3A. Limitations of Rehabilitation frame of reference

3B. Occupation based activity analysis

3C. Delorme and Oxford methods of strengthening program

3D. Differentiate between paradigm and model

(10 marks × 4 = 40 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION****SECOND YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**

**SUBJECT: OCCUPATIONAL PERFORMANCE: PERSONAL AND CONTEXTUAL FACTORS (BOT 203)**  
(2011 & 2015 SCHEME)

Thursday, June 28, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**Answer ALL the questions.**

1. Explain any five OT intervention strategies to improve motor performance.  
(20 marks)
2. Describe sensory re-education principles and explain Dellon's protocol for the same.  
(10+10 = 20 marks)
3. **Short notes:**
  - 3A. Define power grasp and explain its types with example  
(2+8 = 10 marks)
  - 3B. Explain any two spinal level reflexes  
(10 marks)
  - 3C. Explain the general procedure of manual muscle testing for biceps brachii muscle  
(10 marks)
  - 3D. Explain the process of occupation-based functional motion assessment of hip joint  
(10 marks)

