

**MANIPAL ACADEMY OF HIGHER EDUCATION****THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2018****SUBJECT: ORTHOPAEDICS & RHEUMATOLOGY/CLINICAL ORTHOPAEDICS & RHEUMATOLOGY  
(2008 REGULATION/2015 & 2011 SCHEME)**

Saturday, June 02, 2018

Time: 10:00-13:00 Hrs.

Maximum Marks: 80

✍ **Answer SECTION "A" and SECTION "B" in two separate answer books.**

**SECTION "A": ORTHOPAEDICS/CLINICAL ORTHOPAEDICS: 40 MARKS**

1. What are the clinical and radiological features of osteoarthritis of the knee joint? Add a note on non operative management of osteoarthritis of the knee joint.  
(10 marks)
2. Classify the fractures of spine based on mechanism of injury. Write notes on management of a patient with paraplegia.  
(10 marks)
3. **Write short notes on:**
  - 3A. Myositis ossificans
  - 3B. Osteosarcoma
  - 3C. Claw hand
  - 3D. Nutritional rickets

(5 marks × 4 = 20 marks)

**SECTION "B": RHEUMATOLOGY: 40 MARKS**

1. **Write short notes on any FOUR out of the following FIVE questions:**
  - 1A. Mention the criteria for diagnosis of Rheumatoid arthritis.
  - 1B. Discuss the clinical features and treatment of Giant Cell arteritis.
  - 1C. Enlist the various seronegative spondyloarthropathies. Mention two differentiating features between ankylosing spondylitis and reactive arthritis.
  - 1D. Discuss the clinical features and treatment of Psoriatic arthropathy.
  - 1E. Enlist four differences between rheumatoid arthritis and osteoarthritis. Name one extraarticular manifestation of Rheumatoid arthritis.

(5 marks × 4 = 20 marks)

✍ **Answer any TWO FULL questions out of Question No. 2, 3 and 4:**

- 2A. Describe the stages of involvement of kidney in SLE.
- 2B. Enlist the salient investigations.
- 2C. Mention the various treatment options available.

(4+3+3 = 10 marks)

- 3A. Define Sjogren's syndrome.
- 3B. Describe the clinical features.
- 3C. Enlist the principal investigations to diagnose the condition.

(3+3+4 = 10 marks)

- 4A. Define gout.
- 4B. What is podagra?
- 4C. Enumerate the major investigations and treatment options.

(3+3+4 = 10 marks)



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

**SUBJECT: NEUROSCIENCES**  
**(2008 REGULATION/2015 & 2011 SCHEME)**

Tuesday, June 05, 2018

Time: 10:00-13:00 Hrs.

Maximum Marks: 80

**✍ Answer any FOUR questions.**

1. Parkinsons Disease – enumerate
- Pathophysiology
  - Clinical features
  - Parkinsons Plus syndromes
  - Management

(20 marks)

- 2A. Enumerate clinical features and management of subarachnoid hemorrhage  
2B. Clinical subtypes of motor neuron disease

(20 marks)

3. Multiple sclerosis – enumerate
- Etiopathogenesis
  - Clinical features
  - Management

(20 marks)

4. **Write short notes on:**

- 4A. Absence seizures  
4B. BELL'S PALSY  
4C. Trigeminal Neuralgia  
4D. Migraine

(5 marks × 4 = 20 marks)

- 5A. Alcohol toxicity  
5B. Wernicke's Aphasia  
5C. Hysterical paraplegia  
5D. Alzheimer's dementia

(5 marks × 4 = 20 marks)



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

SUBJECT: OCCUPATIONAL THERAPY IN ORTHOPAEDICS & SURGICAL CONDITIONS (BOT 301)  
(2015 & 2011 SCHEME)

Thursday, June 07, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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✍ **Answer ALL the questions**

✍ **Draw the diagram wherever necessary.**

✍ **Long questions:**

1. Describe above elbow prostheses with a labeled diagram. Explain any five pre-prosthetic occupational therapy management for upper limb amputation.

(10+10 = 20 marks)

2. Describe flexor zones of hand with a labelled diagram. Write post-operative occupational therapy management for zone II flexor tendon injury.

(5+15 = 20 marks)

3. **Write short notes on:**

3A. Describe occupational therapy interventions for autonomic dysreflexia.

3B. Describe activities of daily living retraining principles used for limited range of motion.

3C. Occupational therapy management for radical mastectomy.

3D. Describe any four occupational therapy management for low back pain.

(10 marks × 4 = 40 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**  
**SUBJECT: OCCUPATIONAL THERAPY IN NEUROLOGICAL, GERIATRIC AND**  
**MEDICAL CONDITIONS (BOT 302)**  
**(2015 & 2011 SCHEME)**

Saturday, June 09, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long questions:**

1. Explain any four proprioceptive facilitation and inhibition techniques as described by Roods.  
(10+10 = 20 marks)
2. Write in detail the retraining of proximal upper extremity control from stage IV to VI as described by Brunnstrom.  
(20 marks)

3. **Short questions:**

- 3A. Typical posture of adult client with hemiplegia
  - 3B. Write in brief about any five adaptive aids for incoordination
  - 3C. Describe the principles of treatment for proprioceptive neuromuscular facilitation approach
  - 3D. ASIA scale
- (10 marks × 4 = 40 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018**  
**SUBJECT: OCCUPATIONAL THERAPY IN REHABILITATION (BOT 303)**  
**(2011 & 2015 SCHEME)**

Tuesday, June 12, 2018

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Draw diagram wherever necessary.**

✍ **Long Questions:**

1. Define impairment, disability and handicap. Discuss in detail the levels of disability prevention.

(6+14 = 20 marks)

2. Explain different gait patterns with crutches.

(20 marks)

3. **Write short notes on:**

3A. Explain factors influencing occupational therapy intervention in rehabilitation settings.

(10 marks)

3B. Explain any five general safety procedures and standard infection control measures followed in clinical setting.

(10 marks)

3C. Describe sliding board transfers and two indications for the same.

(8+2= 10 marks)

3D. Define biofeedback and explain the instrumentation of EMG biofeedback.

(10 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2018**  
**SUBJECT: COMMUNITY MEDICINE & SOCIOLOGY/SOCIAL & PREVENTIVE**  
**MEDICINE AND SOCIOLOGY**  
**(2008 REGULATION/2011 & 2015 SCHEME)**

Thursday, June 14, 2018

Time 10:00-13:00 Hours

Maximum Marks: 80

- ✍ **Answer ALL questions.**  
✍ **Answer SECTION 'A' and SECTION 'B' in TWO separate answer books.**

**SECTION 'A': COMMUNITY MEDICINE/SOCIAL AND PREVENTIVE MEDICINE: 40 MARKS**

✍ **Long Question:**

1. Define 'epidemiology'. Classify epidemiological study designs. Describe the steps in conducting a Randomized Controlled Trial (RCT).  
(2+3+5 = 10 marks)

2. **Write short notes on:**

- 2A. Types of 'carriers' with suitable examples  
2B. Clinical features and prevention of iron deficiency anemia  
2C. Factors affecting infant mortality  
2D. Uses of growth charts  
2E. Modes of intervention under tertiary prevention  
2F. Functions of World Health Organization (WHO)

(5 marks × 6 = 30 marks)

**SECTION 'B': SOCIOLOGY : 40 MARKS**

1. Explain the meaning of norms and law and their role in regulation of human behaviour.  
(4+6 = 10 marks)
2. What is health? Discuss the social factors affecting health status.  
(2+8 = 10 marks)
3. Explain the influence of informal and formal groups on health and sickness.  
(10 marks)
4. **Write short notes on the following:**
- 4A. Effects of sickness on family  
4B. Social change and health program  
(5+5 = 10 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION****THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2018****SUBJECT: OCCUPATIONAL PERFORMANCE: ADL, WORK AND LEISURE (BOT 304)  
(2011 & 2015 SCHEME)**

Monday, June 18, 2018

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

✍ **Long Answers**

1. **Explain in detail play and leisure as following:**

1A. Experience

1B. Activity

(5+5 = 10 marks)

2. Explain the classification of basic transferable skills and highlight the importance of cognitive and processing skills in ADL performance

(10 marks)

3. **Short Notes:**

3A. 'Client's level of difficulty' as a performance parameter for selecting goals behaviors

3B. Explains the environmental issues in feeding activity faced by person with impairment

3C. Describe indirect services offered by occupational therapists to caregivers

3D. Describe the psychological and behavioral status interrupting the ability to work.

(5 marks × 4 = 20 marks)





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

**SUBJECT: BIO-ENGINEERING (BOT 310)**  
**(2011 & 2015 SCHEME)**

Wednesday, June 20, 2018

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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✍ **Answer ALL the questions.**

✍ **Draw diagrams and flow charts wherever appropriate.**

✍ **Long questions:**

1. Explain in detail designs, types, indication and advantage of plastic A.F.O.

(10 marks)

2. Describe various parts of B.E Prosthesis.

(10 marks)

3. Orthotic Management C.D.H.

(5 marks)

4. **Write short notes any THREE of the following:**

4A. Taylors brace

4B. ASH Brace

4C. SACH Foot

4D. Functions Quadrilateral Socket

(5 marks × 3 = 15 marks)

