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**MANIPAL UNIVERSITY**  
**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE/JULY 2015**  
**SUBJECT: BIO-ENGINEERING**  
**(2011 BATCH)**

Wednesday, July 01, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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✍ **Answer ALL questions.**

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

✍ **Long Questions:**

1. What is Scoliosis? Explain in detail various parts of Milwaukee Brace including advantage and disadvantage.

(10 marks)

2. Explain the various gait deviations of Above Knee prosthesis.

(10 marks)

3. List out indications and advantage of plastic A.F.O.

(5 marks)

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

4A. Orthotic management of C.T.E.V

4B. Terminal device

4C. Suspension system used in A.E prosthesis

4D. Taylors Brace

(5 marks × 3 = 15 marks)



**MANIPAL UNIVERSITY****THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: ORTHOPAEDICS & RHEUMATOLOGY/CLINICAL ORTHOPAEDICS & RHEUMATOLOGY  
(COMMON FOR OLD & 2008 REGULATION/2011 BATCH)**

Tuesday, June 16, 2015

Time: 10:00-13:00 Hrs.

Maximum Marks: 80

**✍ Answer SECTION “A” and SECTION “B” in two separate answer books.****SECTION “A”: CLINICAL ORTHOPAEDICS: 40 MARKS**

1. Classify the fractures of spine based on mechanism of injury. Write notes on management of a patient with paraplegia. (10 marks)
2. What do you mean by ‘gout’ and ‘pseudogout’? Discuss the clinical features and management of “Gouty Arthritis”. (10 marks)
- 3A. Claw hand
- 3B. Nutritional rickets
- 3C. Genu varum
- 3D. Frozen shoulder (20 marks)

**SECTION “B”: RHEUMATOLOGY: 40 MARKS**

1. **Write short notes on any FOUR of the following five questions:**
  - 1A. Clinical features of Sarcoidosis
  - 1B. Etiology and clinical features of Pseudo gout
  - 1C. Wegners granulomatosis
  - 1D. Feltys syndrome
  - 1E. Raynauds phenomenon(5 marks × 4 = 20 marks)

**✍ Answer any TWO full questions out of the following three questions:**

- 2A. Define Osteoporosis.
- 2B. Discuss the etiology and pathophysiology of Osteoporosis.
- 2C. What are the basic investigations to be ordered in a patient with Osteoporosis?
- 2D. Enumerate the drugs used in the management of osteoporosis. (1+4+3+2 = 10 marks)

- 3A. Discuss the diagnostic criteria of SLE.
- 3B. Enumerate drugs used in the management of SLE and its complications.
- 3C. Add a note on ANA.

(5+3+2 = 10 marks)

- 4A. Enumerate four spondyloarthropathies
- 4B. List the salient features of seronegative spondyloarthropathies
- 4C. Enumerate types of Psoriatic arthritis
- 4D. Add a note on clinical features of Reiter's syndrome

(1+4+2½+2½ = 10 marks)



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## MANIPAL UNIVERSITY

THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: NEUROSCIENCES/NEUROLOGICAL SCIENCE  
(OLD & 2008 REGULATION/2011 BATCH)

Thursday, June 18, 2015

Time: 10:00-13:00 Hrs.

Maximum Marks: 80

☞ Answer any FOUR questions. Each question carries TWENTY marks.

1. Classify epilepsy. Enumerate investigations and management of epilepsy.
2. Write short notes on:
  - 2A. Alzheimer's disease
  - 2B. Guillian Barre Syndrome
  - 2C. Organophosphate poisons
  - 2D. Creutzfeldt Jacob disease
3. Write short notes on:
  - 3A. Epidural hematoma
  - 3B. Hydrocephalus
  - 3C. Carbon monoxide poisoning
  - 3D. Optic neuritis
4. Enumerate clinical features of complete transaction of spinal cord at T10 level. Add note on the management of Paraplegia.
5. Myasthenia Gravis:  
Etiology, clinical features, management



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# MANIPAL UNIVERSITY

## THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE/JULY 2015

SUBJECT: OCCUPATIONAL THERAPY IN ORTHOPAEDICS AND SURGICAL CONDITIONS  
(2011 BATCH)

Saturday, June 20, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL the questions

✍ Draw the diagram wherever necessary.

✍ Long Questions:

1. Discuss the post burn contracture and its occupational therapy management. (20 marks)
2. Describe physical and functional status evaluation in spinal cord injury. Explain the OT treatment plan for a person with incomplete spinal cord injury at T10 level. (5+5+10 = 20 marks)
3. Write short notes on:
  - 3A. Explain any two OT interventions for low back pain. (5+5 = 10 marks)
  - 3B. Describe the application of biomechanical frame of reference to improve range of motion. (10 marks)
  - 3C. Occupational therapy interventions for osteoarthritic hand (10 marks)
  - 3D. Explain the occupational therapy management for supracondylar fracture (10 marks)



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## MANIPAL UNIVERSITY

### THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE/JULY 2015 SUBJECT: OCCUPATIONAL THERAPY IN NEUROLOGICAL, GERIATRIC AND MEDICAL CONDITIONS (2011 BATCH)

Tuesday, June 23, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long Questions:**

1. Describe the principles of treatment for Proprioceptive Neuromuscular Facilitation (PNF) approach.  
(20 marks)
2. Describe occupational therapy treatment of clients with severe traumatic brain injury.  
(20 marks)
3. **Write short notes on:**
  - 3A. Occupational therapy treatment objectives for persons with spinal cord injury  
(10 marks)
  - 3B. Explain the biopsychosocial model of pain. Describe any three scales used in pain evaluation  
(4+6 = 10 marks)
  - 3C. What is apraxia? Describe any two types of apraxia.  
(2½+7½ = 10 marks)
  - 3D. Rood's sequential phases of motor development  
(10 marks)



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**MANIPAL UNIVERSITY**  
**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE/JULY 2015**  
**SUBJECT: OCCUPATIONAL THERAPY IN REHABILITATION**  
**(2011 BATCH)**

Thursday, June 25, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Draw diagram wherever necessary.**

✍ **Long Questions:**

1. Define palliative care and explain the role of occupational therapy in it. (4+16 = 20 marks)
2. Explain different types of cane with their advantages and disadvantages. (20 marks)
3. **Write short notes on:**
  - 3A. Define practice setting. Explain factors influencing the delivery of occupational therapy service within a specific practice setting. (3+7 = 10 marks)
  - 3B. Application of EMG biofeedback for muscle reeducation and strengthening (10 marks)
  - 3C. Precautions and contraindications of superficial heating agents (5+5 = 10 marks)
  - 3D. Human activity assistive technology (HAAT) model (10 marks)



# MANIPAL UNIVERSITY

THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: COMMUNITY MEDICINE & SOCIOLOGY/SOCIAL & PREVENTIVE  
MEDICINE AND SOCIOLOGY  
(2008 REGULATION/2011 BATCH)

Saturday, June 27, 2015

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**

✍ **Essay Question:**

1. Classify Blood Pressure based on JNC – 7 criteria. Discuss about epidemiology and prevention of Hypertension.

(10 marks)

2. **Short Answers:**

- 2A. What are the components of Community Based Rehabilitation (CBR)? Enumerate the functions of CBR workers.
- 2B. Discuss the signs of Vitamin A deficiency.
- 2C. Mass approach in health communication.
- 2D. Classify different Epidemiological Study Designs.
- 2E. Write a note on high risk pregnancy.
- 2F. What are the types of HIV epidemics? Describe the pattern of epidemic in India.

(5 marks × 6 = 30 marks)

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

1. What is sociology? Enumerate concepts of sociology and explain its uses.  
(2+3+5 = 10 marks)
2. Name the causes of social change and explain its factors.  
(3+7 = 10 marks)
3. Explain the factors of group life, enumerate the characteristics of primary and secondary groups.  
(5+5 = 10 marks)
4. **Write short notes on the following:**
  - 4A. Social factors affecting health status
  - 4B. Maternity benefit Act

(5+5 = 10 marks)





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## MANIPAL UNIVERSITY

THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE/JULY 2015

SUBJECT: OCCUPATIONAL PERFORMANCE: ADL, WORK AND LEISURE  
(2011 BATCH)

Monday, June 29, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

1. Explain the tasks involved and difficulties faced in the self-maintenance skill of feeding.  
(10 marks)
2. Explain the parameters used to determine appropriate level of goal performance while planning for ADL interventions.  
(10 marks)
3. **Write short notes on:**
  - 3A. Functional capacity evaluation  
(5 marks)
  - 3B. Use of play and leisure in intervention as lures or rewards  
(5 marks)
  - 3C. Developmental perspective of caregiving  
(5 marks)
  - 3D. Define ADL and I-ADL. List out the activities in ADL and I-ADL  
(2+3 = 5 marks)

