

MANIPAL UNIVERSITY**THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2014****SUBJECT: ORTHOPAEDICS AND RHEUMATOLOGY/CLINICAL ORTHOPAEDICS AND RHEUMATOLOGY
(COMMON FOR OLD & 2008 REGULATION/2010 & 2011 BATCH)**

Wednesday, December 17, 2014

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. Describe the clinical features, management and complications of supracondylar fracture of the humerus in a 9 year old boy.
(10 marks)
2. Enumerate malignant tumours of the bone. Discuss the radiological features and management of Osteosarcoma.
(10 marks)
- 3A. Wrist Drop
- 3B. Tennis Elbow
- 3C. Management of a paraplegic patient
- 3D. Lumbo Sacral Corset
(20 marks)

SECTION "B": RHEUMATOLOGY: 40 MARKS

4. Write short notes on any FOUR of the following FIVE questions:
 - 4A. Clinical Features and management of POLYARTERITIS NODOSA
 - 4B. Etiology and clinical features of GOUT
 - 4C. BEHCET'S SYNDROME
 - 4D. STILL'S DISEASE
 - 4E. SJOGREN'S SYNDROME

(5 marks × 4 = 20 marks)

✍ Answer any TWO of the following THREE questions:

- 5A. Define RHEUMATOID ARTHRITIS.
- 5B. Discuss the etiology and pathophysiology of Rheumatoid Arthritis.
- 5C. What are the basic investigations to be ordered in a patient with Rheumatoid Arthritis?
- 5D. Enumerate the drugs used in the management of Rheumatoid Arthritis.
(1+4+3+2 = 10 marks)

- 6A. Discuss the diagnostic criteria of SLE.
- 6B. Enumerate drugs used in the management of SLE and its complications.
- 6C. Add a note on ANA.

(4+4+2 = 10 marks)

- 7A. Define HENOCH SCHOLLIEN PURPURA.
- 7B. Discuss the demographics, etiopathogenesis and clinical features of HSP.
- 7C. Discuss how to investigate and treat a patient with HSP.

(1+5+4 = 10 marks)



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MANIPAL UNIVERSITY

THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2014

SUBJECT: NEUROSCIENCES/NEUROLOGICAL SCIENCE
(OLD & 2008 REGULATION/2010 & 2011 BATCH)

Thursday, December 18, 2014

Time: 10:00-13:00 Hrs.

Maximum Marks: 80

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

1. Define cerebrovascular accident and transient ischaemic attack. Describe the symptoms, signs and management of a patient with left middle cerebral artery infarct.
2. Write short notes on:
 - 2A. Enumerate differences between UMN (upper motor neuron) and lower motor neuron lesions
 - 2B. Bells palsy – symptoms, signs and management
 - 2C. Poliomyelitis
 - 2D. Vitamin B12 – deficiency syndromes
3. Write short notes on:
 - 3A. Spasticity – pathophysiology and management
 - 3B. Parkinsons disease
 - 3C. Limb girdle muscular dystrophy
 - 3D. Optic neuritis
4. Describe the causes clinical features and management of large fibre peripheral neuropathy.
5. Enumerate symptoms, signs, causes and management of orthostatic hypotension.



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014

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

Friday, December 19, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL the questions

✍ Draw the diagram wherever necessary.

✍ Long Questions:

1. Describe any three complications of spinal cord injury. Explain occupational therapy management for the same.

(10+10 = 20 marks)

2. Describe any four occupational therapy evaluation for rheumatoid arthritis. Explain any four joint protection techniques.

(12+8 = 20 marks)

3. Write short notes on:

3A. Mc Kenzie extension exercises

3B. Early post-operative mobilization for hip fractures

3C. Any five adaptive devices for brachial plexus injury

3D. Explain post-operative management for median nerve injury

(10 marks × 4 = 40 marks)



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014

SUBJECT: OCCUPATIONAL THERAPY IN ORTHOPAEDICS
(2010 BATCH – OR)

Friday, December 19, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

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

✍ Long Questions:

1. Describe the features of high level paraplegia and OT intervention for the same.
(5+10 = 15 marks)
2. Describe post-operative occupational therapy management for tibial shaft fracture treated with open reduction and internal fixation.
(15 marks)
3. Discuss any five occupational therapy interventions for post-polio syndrome.
(15 marks)
4. Draw a labelled diagram of extensor tendon zones. Describe the post-operative treatment protocol for zone II injury.
(5+10 = 15 marks)
5. Write short notes on:
 - 5A. Briefly describe post- surgical management of tennis elbow.
 - 5B. William's flexion exercises for low back pain.
 - 5C. Describe three main features of club foot deformity.
 - 5D. Describe sensory reeducation program.

(5 marks × 4 = 20 marks)



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014 SUBJECT: OCCUPATIONAL THERAPY IN NEUROLOGICAL, GERIATRIC AND MEDICAL CONDITIONS (2011 BATCH)

Saturday, December 20, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long questions:**

1. Explain all diagonal patterns of upper limb and lower limb with examples. Justify the use of diagonal patterns in therapy.

(15+5 = 20 marks)

2. Enumerate general occupational therapy treatment objectives for spinal cord injury and describe occupational therapy management of the same.

(10+10 = 20 marks)

3. **Short notes:**

3A. Disorders of left and right hemisphere

(5+5 = 10 marks)

3B. Explain energy conservation techniques with examples

(10 marks)

3C. Explain components of orientation with examples and explain management of orientation deficits in clients with head injury

(3+7 = 10 marks)

3D. Explain the basic assumptions of Roods approach

(10 marks)



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014

SUBJECT: OCCUPATIONAL THERAPY IN NEUROLOGY
(2010 BATCH – OR)

Saturday, December 20, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL the questions.

✍ Long Questions:

1. Explain clinical features of Parkinson's disease and describe the occupational therapy management for the same.
(6+9 = 15 marks)
2. Define cognitive disability and explain Allen's cognitive levels.
(3+12 = 15 marks)
3. Explain Glasgow coma scale and its use in classifying severity of traumatic brain injury. Describe occupational therapy interventions during inpatient rehabilitation for a patient diagnosed with the same.
(5+10 = 15 marks)
4. List in order the six recovery stages of proximal upper extremity and hand according to Brunnstrom approach.
(8+7 = 15 marks)
5. Write short notes on:
 - 5A. Hierarchy of sensory stimuli by Hardy et al
(5 marks)
 - 5B. Stages of learning
(5 marks)
 - 5C. What is apraxia? Describe any two types of apraxia.
(2+3 = 5 marks)
 - 5D. Rood's sequential phases of motor development
(5 marks)



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014

SUBJECT: OCCUPATIONAL THERAPY IN REHABILITATION
(2011 BATCH – NR)

Monday, December 22, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ Answer ALL the questions.

✍ Draw diagram wherever necessary.

✍ Long Questions:

1. Enumerate any five purposes of architectural barrier assessment. Discuss external and internal accessibility at workplace for a wheelchair user.

(5+15 = 20 marks)

2. Describe the driving evaluation process and explain role of occupational therapist in driving training.

(15+5 = 20 marks)

3. Write short notes on:

3A. Any five mechanical principles of hand splinting

3B. Primary effects of superficial heat agents

3C. Safety recommendation to prevent accidents and injuries in clinics

3D. Wheel chair accessories

(10 marks × 4 = 40 marks)



MANIPAL UNIVERSITY**THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014****SUBJECT: OCCUPATIONAL THERAPY IN REHABILITATION
(2010 BATCH – OR)**

Monday, December 22, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Draw diagram wherever necessary.**

1. Explain three types of crutches with their advantages and disadvantages. (15 marks)
2. Describe the essential characteristics of clinical reasoning. (15 marks)
3. Describe compensatory strategies to facilitate independence in any three basic activities of daily living inclients with limited range of motion. (15 marks)
4. Define neuromuscular electrical stimulation and explain any three clinical applications with the rationale. (3+12 = 15 marks)
5. **Write short notes on:**
 - 5A. Any five differences between community and institutional based rehabilitation.
 - 5B. Types of adult wheel chair
 - 5C. Any two biological theories of aging
 - 5D. Enumerate any five mechanical principles of hand splinting(5 marks × 4 = 20 marks)



MANIPAL UNIVERSITY

THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – DECEMBER 2014

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

Tuesday, December 23, 2014

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. Describe the epidemiological determinants of diabetes. Explain the preventive measures.
(5+5 = 10 marks)
2. Write short notes on:
 - 2A. Describe the modes of transmission of diseases with examples.
(5 marks)
 - 2B. Define Pneumoconiosis. Describe Asbestosis in detail.
(1+4 = 5 marks)
 - 2C. Describe briefly the work of World Health Organization.
(5 marks)
 - 2D. Describe the "risk approach" in antenatal care.
(5 marks)
 - 2E. What is disinfection? Describe any four disinfectants mentioning their type.
(1+4 = 5 marks)
 - 2F. Write treatment categories and their regimen in DOTS chemotherapy for tuberculosis in India.
(5 marks)

SECTION 'B': SOCIOLOGY : 40 MARKS

3. Explain the meaning and role of primary and secondary groups in hospital.
(10 marks)
4. What is family? Discuss the nature and functions of modern family in relation to health.
(2+8 = 10 marks)
5. Explain the consequences of poverty on health. Suggest remedies to prevent them.
(5+5 = 10 marks)
6. Short Answers:
 - 6A. Social security measures to the disabled
 - 6B. Social change and stress

(5 marks × 2 = 10 marks)



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014

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

Wednesday, December 24, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

1. Explain the tasks involved in the role duty of homemaking. (10 marks)
2. Explain Ruddick's analysis of work involved in 'parenting'. (10 marks)
3. **Write short notes on:**
 - 3A. Problems in communication
 - 3B. Contextual factors that affect ADL and IADL assessment
 - 3C. Issues involved in caring for an adult with disability
 - 3D. Draw a flow chart depicting 'return to work' decision pathway (5 marks × 4 = 20 marks)



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THIRD YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2014

**SUBJECT: BIO-ENGINEERING
(COMMON FOR 2010 & 2011 BATCH)**

Friday, December 26, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

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

✍ **Long questions:**

1. List out various parts of Metallic A.F.O. Explain in detail check out procedure of Metallic A.F.O.

(10 marks)

2. Explain in detail various parts of above elbow prosthesis.

(10 marks)

3. Orthotic management of C.T.E.V.

(5 marks)

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

4A. Knight spinal Brace

4B. ASH Brace

4C. Suspension system used in A.K Prosthesis

4D. Jaipur Foot

(5 marks × 3 = 15 marks)

