

MANIPAL UNIVERSITY

THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012

**SUBJECT: CLINICAL ORTHOPAEDICS AND RHEUMATOLOGY
(COMMON FOR BOTH OLD & NEW REGULATION)**

Tuesday, June 12, 2012

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 nerve injuries. What is Tinels' Sign Treatment options for a case of foot drop?
(10 marks)
2. Enumerate the principles of fracture management. Enumerate five complications of fractures.
(10 marks)
- 3A. Pressure sore management and prevention.
- 3B. Mechanism, clinical features and management of ankle sprain.
- 3C. Diagnostic criteria of rheumatoid arthritis.
- 3D. Rehabilitation after Colles' fracture and Reflex Sympathetic Dystrophy.
(20 marks)

SECTION "B": RHEUMATOLOGY: 40 MARKS

4. Write short notes on any FOUR of the following:
 - 4A. Enlist the clinical features of Juvenile RA.
 - 4B. Clinical features of Perthe's disease.
 - 4C. Describe Calcium metabolism using a suitable diagram.
 - 4D. Explain the etiopathogenesis and list common causative organisms of Reactive arthritis. Mention the components of Reiter's syndrome.
 - 4E. Discuss treatment options for patients with psoriatic arthritis.
(5×4 = 20 marks)
5. Answer any TWO out of the following THREE questions:
 - 5A. Define Rheumatoid arthritis.
 - 5B. Describe the clinical features of classical RA.
 - 5C. Enlist salient investigations to diagnose RA.
(1+5+4 = 10 marks)
 - 6A. Define osteoarthritis.
 - 6B. Describe the etiopathogenesis of OA and list 2 common causes of secondary OA.
 - 6C. Describe the clinical features of OA.
(1+3+6 = 10 marks)
 - 7A. Define scleroderma and discuss its etiopathogenesis.
 - 7B. Enlist the clinical features and salient investigations for confirming the diagnosis.
(2+(4+4) = 10 marks)



MANIPAL UNIVERSITY
THIRD YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012

SUBJECT: NEUROSCIENCES/NEUROLOGICAL SCIENCE
(COMMON FOR BOTH OLD & NEW REGULATION)

Thursday, June 14, 2012

Time: 10:00-13:00 Hrs.

Maximum Marks: 80

Answer any FOUR questions. Each question carries 20 marks.

- 1 Multiple sclerosis - Etiopathogenesis, Clinical features, Management.

- 2A. What is quadriplegia? Enumerate clinical features of high cervical cord lesion with Management.
- 2B. Write a detailed note on neurogenic bladder.

3. Meningitis- Etiopathogenesis, clinical features, management.

4. **Short notes:**
 - 4A. Wilson disease.
 - 4B. Carbon monoxide poisoning.
 - 4C. Alcohol toxicity.
 - 4D. Recreational drug abuse.

5. **Short notes:**
 - 5A. Motor neuron disease.
 - 5B. Duchenne muscular dystrophy.
 - 5C. Down's syndrome.
 - 5D. Cerebral palsy.



MANIPAL UNIVERSITY**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: OCCUPATIONAL THERAPY IN ORTHOPAEDICS**

Saturday, June 16, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

☞ Answer all the Questions**☞ Draw the Diagram Wherever Necessary.**

1. Describe OT role in rehabilitative phase management for 40 year old spinal cord injury at T12 level.

(15 marks)

2. Describe briefly the procedure of prosthesis prescription and explain above elbow prosthetic training program with emphasis on ADL task.

(5+10 = 15 marks)

3. How will you apply Biomechanical FOR to treat a 25yr male computer professional diagnosed with supracondylar fracture with nerve injury?

(5+5+5 = 15 marks)

4. Explain in detail the OT role in orthopedic conditions and describe OT treatment process.

(10+5 = 15 marks)

5. Short Notes:

5A. Write brief notes on work simplification techniques for Ankylosing Spondylitis.

5B. Describe home program for knee arthroplasties with do and don'ts.

5C. Mention the remedial and compensation techniques used in peripheral nerve injuries.

5D. Write brief note on OT role in wound management.

(5×4 = 20 marks)



MANIPAL UNIVERSITY**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: OCCUPATIONAL THERAPY IN NEUROLOGY**

Tuesday, June 19, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

Answer ALL the questions.

1. What are the basic limb synergies in hemiplegia? Write in detail the retraining of proximal upper extremity control from stage 1 to 3 as described by Brunnstrom.
(5+10 = 15 marks)
2. Explain Parkinson's disease. Write the prognosis and outcome. Discuss the Occupational therapy evaluation and treatment intervention for the same.
(2+3+5+5 = 15 marks)
3. According to Carr and Shepherd, how do patients with hemiplegia develop compensatory strategies? Discuss the prevention of the same.
(5+10 = 15 marks)
4. Discuss in detail the pathological classification of intracranial tumors as described by W.H.O with illustration. Describe the nature and clinical features of each tumor type.
(7+2+6 = 15 marks)
5. **Short Notes:**
 - 5A. Treatment for Bell's palsy.
 - 5B. Causes and clinical features of meningitis.
 - 5C. Types of Multiple Sclerosis.
 - 5D. Anchoring technique.
(5×4 = 20 marks)



MANIPAL UNIVERSITY

THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012

SUBJECT: OCCUPATIONAL THERAPY IN REHABILITATION

Thursday, June 21, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer all the questions.**

1. Prescribe an appropriate mobility device for a patient with C6-7 level spinal cord injury. Identify the architectural barriers and discuss the modifications for the same.
(3+12 = 15 marks)
2. Describe OT role in COPD rehabilitation with emphasis on breathing techniques used in pulmonary rehabilitation.
(10+5 = 15 marks)
3. Write the assumption and function-dysfunction continua of Rehabilitation FOR. Discuss the various types of assessment procedures used by rehabilitative frame of reference.
(3+3+9 = 15 marks)
4. Differentiate between CBR and IBR. Explain the Occupational Therapy role in CBR.
(5+10 = 15 marks)
5. **Short notes:**
 - 5A. Valsalva maneuver.
 - 5B. Travel concessions for person with disabilities in India.
 - 5C. Describe in Brief any three adaptive devices used in home management.
 - 5D. Preventive approach in geriatric OT.
(5×4 = 20 marks)



MANIPAL UNIVERSITY**THIRD YEAR B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: BIO-ENGINEERING**

Saturday, June 23, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 40

☞ **Answer ALL questions. Draw diagrams and flow charts wherever appropriate.**

1. Describe the various checkout procedures of a Below Elbow Prosthesis.
(10 marks)
2. Describe the parts of a K.A.F.O. List its indications.
(8+2 = 10 marks)
3. Explain the bio-mechanics of quadrilateral socket design of Above Knee Prosthesis.
(5 marks)
4. **Write short notes on any THREE of the following:**
 - 4A. Milwaukee Brace.
 - 4B. Rocker Bottom sole.
 - 4C. Dennis Brown splint.
 - 4D. STEN FOOT.

(5×3 = 15 marks)

