

**FEBRUARY 2007**

**[KQ 804 G]**

**Sub. Code : 9104**

**M.O.T. DEGREE EXAMINATION.**

(Revised Regulation)

**Part II**

**Branch IV — Advanced Occupational Therapy  
in Neurology**

**Paper I — CLINICAL SPECIALITY**

**Time : Three hours                      Maximum : 100 marks**

**Theory : Two hours and                      Theory : 80 marks  
forty minutes**

**M.C.Q. : Twenty minutes                      M.C.Q. : 20 marks**

**Answer ALL questions.**

**Draw suitable diagrams wherever necessary.**

**I. Essay :**

(1) Explain contemporary task-oriented Approach with emphasis on its evaluation and treatment principles. (20)

(2) Write about the various practice conditions and its effect on motor skill acquisition and retention. (15)

(3) How do the sensory systems affect posture and balance control? Write about the assessment and treatment of the sensory strategies in patients with postural disorders. (15)

**II. Short notes : (6 × 5 = 30)**

(a) Write about the Occupational therapy assessment and management of apraxia.

(b) Discuss about the various scales for the assessment of balance.

(c) Write about the Occupational therapy management of dysphagia in patients with neurological dysfunction.

(d) Write about Neural plasticity.

(e) Write about Lowenstein Occupational Therapy Cognitive Assessment (LOTCA).

(f) Discuss Functional electrical stimulation in retraining upper extremity function.

**SEPTEMBER 2007**

**[KR 804 G]**

**Sub. Code : 9104**

**M.O.T. DEGREE EXAMINATION.**

(Revised Regulation)

Part — II

Branch IV — Advanced Occupational Therapy in  
Neurology

Paper I — CLINICAL SPECIALITY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and  
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Write the difference between traditional and contemporary approaches. Describe in detail the Carr and Shepherd's motor relearning program for stroke.

(20)

(2) What is Vestibulo Ocular Reflex (VOR). Discuss in detail the role of vestibular system in postural control. (15)

(3) Discuss the role of cerebral cortex, basal ganglia and cerebellum in producing voluntary movement. (15)

II. Short notes : (6 × 5 = 30)

(a) Gate control theory of pain.

(b) Functional electrical stimulation.

(c) Computers in assistive technology.

(d) Endurance training by using Bio-mechanical approach.

(e) Assumptions of task oriented approach.

(f) Role of Reticular Activating System (RAS) in consciousness.

**MARCH 2008**

**[KS 804 G]**

**Sub. Code : 9104 N<sub>1</sub>**

**M.O.T. DEGREE EXAMINATION.**

**(Revised Regulations)**

**Part II**

**Branch IV — Advanced Occupational Therapy in  
Neurology**

**Paper I — CLINICAL SPECIALITY**

**Q.P. Code : 419104 N<sub>1</sub>**

**Time : Three hours**

**Maximum : 100 marks**

**Answer ALL questions.**

**I. Long Essay : (2 × 20 = 40)**

**1. Describe in detail the neurophysiology of sensory motor approaches to treatment.**

**2. What are reflexes and reactions? Discuss the importance of testing reflexes and reactions.**

**II. Short notes : (10 × 6 = 60)**

**1. Wheel chair measurement**

**2. Principles of Brunstrom**

- 3. Activity adaptation**
- 4. Vestibular stimulation**
- 5. Assistive technology**
- 6. Basal ganglia**
- 7. Motor control**
- 8. Evaluation of somatosensory system**
- 9. ADL**
- 10. Types of orthosis**

March 2009

[KU 804 G]

Sub. Code: 9104 N<sub>1</sub>

**M.O.T. DEGREE EXAMINATION**

**(Revised Regulations)**

**Part II**

**Branch IV – ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY**

**Paper I – CLINICAL SPECIALITY**

*Q.P. Code : 419104 N<sub>1</sub>*

**Time : Three hours**

**Maximum : 100 marks**

**Answer All questions**

**Draw suitable diagrams where ever necessary**

**I. Essay Questions :**

**(2 x 20 = 40)**

1. Describe in detail about the Neuro physiology of spasticity and explain its management.
2. Discuss about the Neuro psychological function and describe one standard neuro psychological test for stroke and traumatic brain injury.

**II. Write Short Notes :**

**(10 x 6 = 60)**

1. Bobath approach.
2. FES.
3. Diet progression in dysphagia.
4. Vestibular stimulation.
5. Principles of biomechanical approach.
6. Spinal orthoses.
7. Motion analysis.
8. Principles of making splint.
9. Technologies in cognitive retraining.
10. Electro myography.

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September 2010

[KX 806]

Sub. Code: 9106

**M.O.T. DEGREE EXAMINATION**

**SECOND YEAR**

**Revised Regulation: For candidates admitted from 2005-2006 onwards**

**Part II**

**Paper I – CLINICAL SPECIALITY – I (Elective Subjects)**

**ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY**

*Q.P. Code : 419106*

**Time : Three hours**

**Maximum : 100 marks**

**Answer All questions**

**Draw suitable diagrams where ever necessary**

**I. Essay Questions :**

**(2 x 20 = 40)**

1. Discuss the role of cerebral cortex, basal ganglia and cerebellum in producing voluntary movements.
2. What are reflexes and reactions? Discuss the importance of testing reflexes and reactions.

**II. Write Short Notes :**

**(10 x 6 = 60)**

1. Principles of brunstrom.
2. Assistive technology.
3. Gait control theory of pain.
4. Endurance training by using Biomechanical approach.
5. Role of Reticular Activating System (RAS) in consciousness.
6. Work hardening programme.
7. Spinal orthoses.
8. Principles of making splint.
9. ADL.
10. Functional tests used for upper extremity.

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**APRIL 2011**

**[KY 806]**

**Sub. Code: 9106**

**M.O.T. DEGREE EXAMINATION**

**SECOND YEAR**

**Revised Regulation: For candidates admitted from 2005-2006 onwards**

**Part II**

**Paper I – CLINICAL SPECIALITY – I**

**(Elective Subjects)**

**ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY**

***Q.P. Code : 419106***

**Time : Three hours**

**Maximum : 100 marks**

**Answer All questions**

**Draw suitable diagrams where ever necessary**

**I. Essay Questions :**

**(2 x 20 = 40)**

1. Explain in detail the assumptions/principles of Proprioceptive Neuromuscular Facilitation (PNF) Describe the diagonal patterns of PNF for upper and lower limbs with suitable examples.
2. Discuss in detail the Multicontext treatment approach

**II. Write Short Notes :**

**(10 x 6 = 60)**

1. Limb apraxia.
2. Inhibitory techniques of NDT.
3. Vestibular rehabilitation.
4. Types of aphasia.
5. Types of wheelchairs.
6. Functions of basal ganglia.
7. Assessment of memory functions.
8. Upper motor neuron and lower motor neuron lesions.
9. Assessment and treatment of astereognosis.
10. Phases of deglutition.

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October 2011

[KZ 806]

Sub. Code: 9106

**M.O.T. DEGREE EXAMINATION**

**SECOND YEAR**

**PART II**

**PAPER I – CLINICAL SPECIALITY – I**

**(ELECTIVE SUBJECTS)**

**ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY**

*Q.P. Code : 419106*

**Time : 3 hours  
(180 Min)**

**Maximum : 100 marks**

**Answer ALL questions in the same order.**

**I. Elaborate on :**

	<b>Pages (Max.)</b>	<b>Time (Max.)</b>	<b>Marks (Max.)</b>
1. Explain role of vestibular system in posture and movement.	17	40 min.	20
2. Describe the motor function of basal ganglion and brain stem.	17	40 min.	20

**II. Write notes on :**

1. Explain the cross section of spinal cord and reflexes of spinal cord.	4	10 min.	6
2. Dysfunction of cerebellum.	4	10 min.	6
3. Descending tracts of spinal cord.	4	10 min.	6
4. How will you use motor control therapy to improve voluntary control in stroke patients?	4	10 min.	6
5. What are the treatment principals in somatosensory rehabilitation?	4	10 min.	6
6. Explain the assumptions underlying the reconstruction of roods approach.	4	10 min.	6
7. State the primary goal of neurodevelopment treatment approach.	4	10 min.	6
8. Task oriented approach.	4	10 min.	6
9. Define ADL. Types of ADL and explain some standardized ADL scales.	4	10 min.	6
10. Explain any one standardized scale for cognitive and perceptual evaluation.	4	10 min.	6

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**April 2012**

[LA 806]

**Sub. Code: 9106**

**M.O.T. DEGREE EXAMINATION  
SECOND YEAR  
PART II**

**PAPER I – CLINICAL SPECIALITY – I (ELECTIVE SUBJECTS)  
ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY**

*Q.P. Code : 419106*

**Time : 3 hours  
(180 Min)**

**Maximum : 100 marks**

**Answer ALL questions in the same order.**

**I. Elaborate on :**

**Pages    Time    Marks  
(Max.)   (Max.)   (Max.)**

- |  |    |    |    |
|--|----|----|----|
| 1. Explain in detail the Principles of Neurodevelopment therapy<br>Discuss in detail the function-dysfunction continua and the<br>postulates regarding change and interventions. | 17 | 40 | 20 |
| 2. Discuss in detail the assessment and management of dysphagia.   | 17 | 40 | 20 |

**II. Write notes on :**

- |  |   |    |   |
|--|---|----|---|
| 1. Functions of the frontal lobe.  | 4 | 10 | 6 |
| 2. Associated reactions in Brunnstrom's approach.  | 4 | 10 | 6 |
| 3. Assessment of righting reactions and equilibrium responses<br>in neurological evaluation. | 4 | 10 | 6 |
| 4. Visual foundation Skills.   | 4 | 10 | 6 |
| 5. PNF technique of "reversal of antagonists".   | 4 | 10 | 6 |
| 6. CT scan.  | 4 | 10 | 6 |
| 7. OT management of memory deficits.   | 4 | 10 | 6 |
| 8. Indications and applications of Biomechanical approach in<br>neurological conditions.     | 4 | 10 | 6 |
| 9. Muscle Spindles.  | 4 | 10 | 6 |
| 10. Therapeutic use of any two special senses in neurorehabilitation.                        | 4 | 10 | 6 |

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[LB 806]

OCTOBER 2012  
M.O.T. DEGREE EXAM  
SECOND YEAR  
PART II

Sub. Code: 9106

PAPER I – CLINICAL SPECIALITY – I (ELECTIVE SUBJECTS)  
ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY

*Q.P. Code : 419106*

Time : 3 hours  
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

**I. Elaborate on :**

Pages Time Marks  
(Max.) (Max.) (Max.)

- |  |    |    |    |
|--|----|----|----|
| 1. Define Orthosis, classification of arthosis. Draw and explain various orthosis given to a Rheumatoid arthritis patient. | 17 | 40 | 20 |
| 2. Define Pain. Theories of pain and explain the occupational therapy management for pain.                                 | 17 | 40 | 20 |

**II. Write notes on :**

- |   |   |    |   |
|---|---|----|---|
| 1. Ascending tracts of spinal cord.   | 4 | 10 | 6 |
| 2. Parts of cerebral cortex and areas of functional localization of cerebral hemisphere.                  | 4 | 10 | 6 |
| 3. Motor function of basal ganglion and brain stem.   | 4 | 10 | 6 |
| 4. Role of vestibular system in posture and movement.   | 4 | 10 | 6 |
| 5. Roods components of motor control.   | 4 | 10 | 6 |
| 6. Brunnstrom motor recovery of hand after CVA, how will you give hand therapy using Brunnstrom approach? | 4 | 10 | 6 |
| 7. What are the assumptions of Biomechanical approach?  | 4 | 10 | 6 |
| 8. Assumption of rehabilitation approach.   | 4 | 10 | 6 |
| 9. Job analysis and types of job analysis.  | 4 | 10 | 6 |
| 10. What is activity adaptation? How will you adapt painting for a quadriplegic?                          | 4 | 10 | 6 |

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[LC 806]

APRIL 2013  
M.O.T. DEGREE EXAM  
SECOND YEAR  
PART II

Sub. Code: 9106

PAPER I – CLINICAL SPECIALITY – I (ELECTIVE SUBJECTS)  
ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY

*Q.P. Code : 419106*

**Time : 3 hours**

**Maximum : 100 marks**

**I. Elaborate on :**

**(2x20=40)**

1. Explain in detail the basic concepts underlying the Carr and Shephard's Motor Relearning Program (MRP). Describe the assessment based on MRP.
2. Explain in detail vestibular based rehabilitation

**II. Write notes on :**

**(10x6=60)**

1. MRI Scan
2. Tonic neck reflexes
3. Powered wheelchair
4. Assessment of metacognitive functions
5. Light versus heavy work muscles in Rood's approach
6. Occupation-based activity analysis
7. Functions of cerebellum
8. Dynamic orthosis in neurological disorders
9. Assessment of tone
10. Assessment of stereognosis

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[LE 806]

APRIL 2014

Sub. Code: 9106

**M.O.T. DEGREE EXAMS  
SECOND YEAR  
PART II  
PAPER I – CLINICAL SPECIALITY – I (ELECTIVE SUBJECTS)  
ADVANCED OCCUPATIONAL THERAPY IN NEUROLOGY**

*Q.P. Code : 419106*

**Time : 3 hours**

**Maximum : 100 marks**

**I. Elaborate on :**

**(2x20=40)**

1. Explain in detail the basic concepts underlying the Neurodevelopmental approach (NDT). Describe the assessment and treatment of axial control based on NDT.
2. Explain in detail the cognitive disability frame of reference.

**II. Write notes on :**

**(10x6=60)**

1. Nerve conduction studies
2. Associated reactions
3. PNF techniques to improve strength
4. Steps of motor relearning program
5. Size principle of motor unit recruitment and its application in OT
6. Theory-focused activity analysis
7. Role of OT in chronic pain
8. Tracheostomy and implications to OT
9. Monofilaments
10. Describe any two standardized assessments for hand functions

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