

Reg. No.

**MANIPAL UNIVERSITY**

**FIRST YEAR M.O.T. DEGREE EXAMINATION – MAY/JUNE 2013**

**SUBJECT: PAPER – II: OCCUPATIONAL THERAPY: KNOWLEDGE BASE**

Saturday, June 01, 2013

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

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

✍ **Long questions:**

1. What is exercise testing? What are the indications and contraindications for exercise testing? Describe the various considerations during exercises training program for diabetic patient.

(4+6+10 = 20 marks)

2. Discuss the influences of cortical plasticity on learning and its implications in clinical practice.

(15+5 = 20 marks)

3. Discuss the physiology of normal tone and pathophysiology of muscle spasticity.

(10+10 = 20 marks)

**4. Short Notes:**

4A. Ecology Theory of motor control and its clinical implications.

4B. Describe the abnormal findings of neuromuscular transmission in repetitive stimulation testing.

(10+10 = 20 marks)



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FIRST YEAR M.O.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER – III: ASSESSMENTS IN OCCUPATIONAL THERAPY

Tuesday, June 04, 2013

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

**Answer ALL the questions:**

**Long Questions:**

1. Discuss about purpose, administration and psychometric properties of Minnesota manual dexterity test. Discuss any three areas of application of its results by occupational therapist

(2+4+5+9 = 20 marks)

2. Discuss the mobility and stability component for evaluation of permanent physical impairment status for lower limbs.

(20 marks)

3. Discuss about various need and domain of International Classification of function (ICF) and compare it with International classification of impairment, Disability and Handicap (ICIDH).

(12+8 = 20 marks)

**4. Short Notes:**

4A. Clinical evaluation of praxia.

4B. Discuss about factors which can affect assessment of occupational performance of geriatric population.

(10+10 = 20 marks)



**MANIPAL UNIVERSITY****FIRST YEAR M.O.T. DEGREE EXAMINATION – MAY/JUNE 2013****SUBJECT: PAPER – IV: OCCUPATIONAL THERAPY: TOOLS FOR PRACTICE**

Thursday, June 06, 2013

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

**Answer all questions:****Long questions:**

1. Briefly describe the Environmental Press Theory and intervention strategies to optimize accessibility and participation in home, work and community. Discuss the universal design concept for kitchen and its limitations.

(12+8 = 20 marks)

2. Enumerate the mechanical principle and its application in the hand splinting. Describe how the mechanical advantage of the splint can be enhanced for a splint with an extended outrigger attachment.

(8+12 = 20 marks)

3. List the common symptoms treated in palliative care. Explore the psychological and physical implications of any two of the main symptoms and how occupational therapy models/strategies might address these.

(8+12 = 20 marks)

**Short notes:**

- 4A. Explain the strength-duration curve of an electrical stimulus.
- 4B. Describe the emerging trends in the practice of occupational therapy and identify one strong potential area of practice unexplored in India.

(10+10 = 20 marks)



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## MANIPAL UNIVERSITY

**FIRST YEAR MOT DEGREE EXAMINATION – MAY/JUNE 2013**

**SUBJECT: ADVANCED BIOSTATISTICS & RESEARCH METHODOLOGY**

Tuesday, May 28, 2013

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

✍ **Answer all questions.**

1. Define the following:

1A. Alternate hypothesis

1B. Type II error

1C. P- value

1D. Level of significance

1E. Parameter

(1×5 = 5 marks)

2A. Define various measures of central tendency and write the situations where each one is appropriate.

2B. Explain the method of systematic sampling and state its merits and demerits.

(5+5 = 10 marks)

3A. A researcher identified coronary risk factors among men and women in a long term health care facility. Of the 250 male subjects, 62 had hypertension. Of the 1100 female subjects, 265 had hypertension. Construct 95% confidence interval for difference in proportions of hypertension between male and females and interpret it.

3B. A sample of 500 students participated in a study to evaluate the level of their knowledge of risk factors for a certain group of diseases and the result is given below:

Course	Knowledge of risk factors		
	Good	Poor	Total
Paramedical	72	50	122
Engineering	58	320	378
<b>Total</b>	130	370	500

Do these data suggest that there is an association between knowledge of risk factors for the group of disease and major field of study from which the present sample is drawn? (Let  $\alpha=0.05$ , Chi square for 1 degree of freedom= 3.84).

(5+5 = 10 marks)

- 4A. Explain the design, conduct and analysis of cohort study.
- 4B. A group of 5000 men with the habit of chewing tobacco and another group of 8000 men without the habit were followed up for a specified length of time, to assess the association between tobacco chewing and oral cancer. At the end of follow up 45 cases were observed among the chewing group and 22 cases among non-chewers group. Construct a  $2 \times 2$  table for this information. Obtain the strength of association between tobacco chewing habits and oral cancer. Interpret the findings.

(10+5 = 15 marks)

- 5A. Discuss about materials and methods in a research report.
- 5B. Briefly explain the multivariate technique used for the analysis of time-to event data.

(5+5 = 10 marks)

**6. Write short notes on:**

- 6A. Sample size determination for estimation of mean
- 6B. Wilcoxon signed rank test
- 6C. Analysis of Variance
- 6D. Regression
- 6E. Systematic reviews
- 6F. Binomial distribution

(5×6 = 30 marks)



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### FIRST YEAR M.O.T. DEGREE EXAMINATION – MAY/JUNE 2013

SUBJECT: PAPER – I: OCCUPATIONAL THERAPY: PHILOSOPHY AND THEORETICAL FOUNDATIONS

Thursday, May 30, 2013

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer all questions.**

✍ **Long Questions:**

1. Explain with suitable examples the treatment principles of MOHO. Also critically analyze the model.

(15+5 = 20 marks)

2. Explain the assumptions fundamental to developmental frames of reference and the role of activities in the same. Outline the assessment and treatment guidelines in the application of developmental frames of reference in occupational therapy practice.

(10+10 = 20 marks)

3. Explain the assumptions of the Sensory Integration FOR. Discuss the scope of application of this FOR in occupational therapy practice.

(10+10 = 20 marks)

**4. Short notes:**

4A. Behavioral strategies to eliminate undesirable behavior.

4B. Conceptual Practice models.

(10+10 = 20 marks)



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