

30 T

Reg. No.									
----------	--	--	--	--	--	--	--	--	--

**MANIPAL UNIVERSITY**  
**FIRST YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2014**

**SUBJECT: ANATOMY**  
**(NR/2011 BATCH)**

Tuesday, June 03, 2014

Time: 10.00-13.00 Hours.

Max. Marks: 80

1. **Explain the knee joint under the following headings:**

- 1A. Articular surfaces
- 1B. Intra-capsular structures
- 1C. Locking and unlocking movements and muscles producing them
- 1D. Nerve supply
- 1E. Applied anatomy

(2+6+6+2+4 = 20 marks)

2. **Explain the brachial plexus under the following headings:**

- 2A. Formation
- 2B. Parts
- 2C. Branches of different parts
- 2D. Applied anatomy

(3+2+10+5 = 20 marks)

3. **Write briefly on:**

- 3A. Hypothalamus and its functions
- 3B. Fourth ventricle
- 3C. Cranial nerves attached to the brainstem
- 3D. Spinal cord
- 3E. Cerebellum

(5 marks × 5 = 25 marks)

4. **Write short notes on:**

- 4A. Skeletal muscle
- 4B. Stomach
- 4C. Right lung
- 4D. Para nasal air sinuses
- 4E. Fibrous joints

(3 marks × 5 = 15 marks)



**MANIPAL UNIVERSITY**

**FIRST YEAR BOT/B.Sc. MLT/B.Sc. CVT/B.Sc. MIT/B.Sc. RT/B.Sc. NMT/  
B.Sc. RRT & DT/B.Sc. MRT/M.Sc. NMT DEGREE EXAMINATION – JUNE 2014**

**SUBJECT: PHYSIOLOGY**

Thursday, June 05, 2014

Time: 10.00-11.30 Hours.

Max. Marks: 40

✍ **Answer ALL questions. Draw diagrams wherever necessary.**

**1. Essay questions:**

- 1A. Define cardiac output. Give its normal value and describe the factors regulating cardiac output.
- 1B. List any five actions of thyroid hormones.
- 1C. Define erythropoiesis. Mention its stages and list any two factors regulating it.
- 1D. Define a reflex. Draw a neat labeled diagram of a reflex arc.

(5 marks × 4 = 20 marks)

**2. Write short answers for the following:**

- 2A. Write any two differences between simple diffusion and facilitated diffusion.
- 2B. Draw a neat labeled diagram of a neuron.
- 2C. List any four hormones secreted by anterior pituitary.
- 2D. Name the two divisions of autonomic nervous system.
- 2E. Mention any two contraceptive methods in males.
- 2F. List two functions of liver.
- 2G. Mention the location of rods and cones. State one function of each.
- 2H. Classify hypoxia.
- 2I. Define GFR and give its normal value.
- 2J. Draw a labeled diagram of a sarcomere.

(2 marks × 10 = 20 marks)



Reg. No.									
----------	--	--	--	--	--	--	--	--	--

## MANIPAL UNIVERSITY

FIRST YEAR BPT/BOT/B.Sc. MLT/ B.Sc. NMT/B.Sc. RT/B.Sc. MIT/B.Sc. CVT/ B.Sc. RRT & DT/M.Sc. NMT

DEGREE EXAMINATION – JUNE 2014

SUBJECT: BIOCHEMISTRY

Saturday, June 07, 2014

Time: 10.00-11.30 Hours

Max. Marks: 40

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

1. Explain gluconeogenesis under the following headings:

- 1A. Site and subcellular site  
1B. Reactions of synthesis of glucose from lactate

(1+7 = 8 marks)

2. Classify enzymes giving one example for each class.

(6 marks)

3. Write short notes on the following:

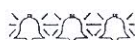
- 3A. Structure of starch  
3B. Reactions of  $\beta$ -oxidation of fatty acyl CoA  
3C. Four differences between DNA and RNA  
3D. Classification and functions of lipoproteins

(4 marks  $\times$  4 = 16 marks)

4. Answer the following:

- 4A. Define and write the normal values of BMR  
4B. Name two essential fatty acids and write their functions  
4C. Write the normal serum levels of total protein, creatinine, calcium and urea  
4D. List four differences between kwashiorkor and Marasmus  
4E. Mention the fate of the end product of glycogenolysis in liver and muscle

(2 marks  $\times$  5 = 10 marks)





- 3C. Maslow's hierarchy of needs
- 3D. Coping Mechanisms
- 3E. Principles of Classical Conditioning
- 3F. Type Approach to Personality
- 3G. Any three theories of forgetting
- 3H. Experimental Method
- 3I. James-Lange theory of emotion

(5 marks × 6 = 30 marks)

4. **Write essay on any TWO of the following:**

- 4A. Define Learning and explain Thorndike's trial and error learning.
- 4B. Give an account on the Psychological theories of Motivation.
- 4C. Explain any three approaches of Personality.

(15 marks × 2 = 30 marks)



Reg. No.

--	--	--	--	--	--	--	--	--	--

MANIPAL UNIVERSITY

FIRST YEAR B.O.T. DEGREE EXAMINATION – JUNE 2014

SUBJECT: OCCUPATIONAL THERAPY FUNDAMENTALS  
(2011 BATCH)

Thursday, June 12, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer ALL the questions.

✍ Long questions:

1. Explain the Occupational Performance Model.
2. Describe five important assumptions about occupational therapy performance as embedded in occupational therapy.

(10 marks × 2 = 20 marks)

3. Short notes:

- 3A. Write on four important unique aspect of occupational therapy.
- 3B. Expand 'AIOTA' and list out five important activities of the same.
- 3C. Write on 'Diversion' as a purpose of occupational therapy.
- 3D. Write on five common areas that an occupational therapist is likely to work.

(5 marks × 4 = 20 marks)





Reg. No.									
----------	--	--	--	--	--	--	--	--	--

**MANIPAL UNIVERSITY**  
**FIRST YEAR B.O.T. DEGREE EXAMINATION – JUNE 2014**  
**SUBJECT: BASICS OF OCCUPATIONAL THERAPY ASSESSMENT**  
**(2011 BATCH)**

Saturday, June 14, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

---

**Answer ALL the questions.**

1. Define muscle strength. Write a note on general principles and procedures of manual muscle testing.

(2+8 = 10 marks)

2. Explain the purpose of evaluating sensation and the role of sensation in occupational functioning.

(5+5 = 10 marks)

3. **Short notes:**

3A. Techniques of palpation

3B. Methods of joint measurement

3C. Formal methods of evaluation

3D. Benefits of occupational performance diagnosis

(5 marks × 4 = 20 marks)

