

**MANIPAL UNIVERSITY****FIRST YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: ANATOMY  
(NR/2011 BATCH)**

Tuesday, June 02, 2015

Time: 10.00-13.00 Hours.

Max. Marks: 80

**1. Describe the elbow joint under the following headings:**

- 1A. Type and articular surfaces
- 1B. Ligaments and Relations
- 1C. Movements and muscles producing them
- 1D. Applied anatomy

(3+8+5+4 = 20 marks)

**2. Describe the common peroneal nerve and its terminal branches under the following headings:**

- 2A. Origin and root value
- 2B. Course
- 2C. Branches and distribution
- 2D. Applied anatomy

(3+5+8+4 = 20 marks)

**3. Write briefly on:**

- 3A. Circle of Willis
- 3B. Gyri on the lateral surface of frontal lobe
- 3C. Lateral ventricle
- 3D. Lateral spinothalamic tract
- 3E. Thalamus

(5 marks × 5 = 25 marks)

**4. Write short notes on:**

- 4A. Structure of typical synovial joint
- 4B. Ovary
- 4C. Coronary sinus
- 4D. Spermatic cord
- 4E. Prostate gland

(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 2015

SUBJECT: PHYSIOLOGY

Thursday, June 04, 2015

Time: 10.00-11.30 Hours.

Max. Marks: 40

☞ Answer ALL questions. Draw diagrams wherever necessary.

1. Essay Questions:

- 1A. Explain the chemical regulation of respiration.
- 1B. Draw and label an electrocardiogram (ECG) from limb lead II. Indicate any two intervals of ECG. Mention any two uses of ECG.
- 1C. Mention any two functions of cerebellum. List any three features of cerebellar lesion.
- 1D. Mention any two actions of growth hormone. List any three clinical features of acromegaly.

(5 marks × 4 = 20 marks)

2. Write short answers for the following:

- 2A. List any two functions of hemoglobin.
- 2B. List any two functions of white blood cells.
- 2C. Write a note on achalasia cardia.
- 2D. Name the parts of the vestibular apparatus and mention one function of vestibular apparatus.
- 2E. Define blood pressure. Mention the normal systolic and diastolic blood pressure range in a normal adult, at rest.
- 2F. Mention any two functions of skin.
- 2G. Name two indicators of ovulation.
- 2H. Mention two differences between facilitated diffusion and active transport mechanism.
- 2I. Mention two differences between skeletal and cardiac muscles.
- 2J. Give any two differences between rods and cones.

(2 marks × 10 = 20 marks)



**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 2015****SUBJECT: BIOCHEMISTRY**

Saturday, June 06, 2015

Time: 10.00-11.30 Hours

Max. Marks: 40

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

1. Explain anaerobic glycolysis and add a note on its energetics. (8 marks)
2. Give a diagrammatic representation of the processes of emulsification and absorption of lipids in the intestine. (6 marks)
3. **Write short notes on the following:**
- 3A. Components of electron transport chain and order of their arrangement  
3B. Reactions of  $\beta$ -oxidation in mitochondria  
3C. Importance of dietary fibers  
3D. Secondary structure of proteins (4 marks  $\times$  4 = 16 marks)
4. **Answer the following:**
- 4A. List four differences between DNA and RNA.  
4B. Write two reactions where the coenzyme form of niacin is required.  
4C. List the four key enzymes of gluconeogenesis.  
4D. Name one condition in which these biochemical parameters are increased in blood: glucose, uric acid, bilirubin and urea.  
4E. Define buffer and write the Henderson- Hasselbalch equation. (2 marks  $\times$  5 = 10 marks)



**MANIPAL UNIVERSITY****FIRST YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015****SUBJECT: GENERAL PSYCHOLOGY  
(2011 BATCH)**

Tuesday, June 09, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

**1. Choose the single best answer.**

- 1A. In Pavlov's experiments with dogs, salivation to the meat powder was the
- i) Conditioned response
  - ii) Unconditioned stimulus
  - iii) Conditioned stimulus
  - iv) Unconditioned response
- 1B. Which of the following needs must be satisfied before a person can attain esteem, according to Maslow's hierarchy of motives:
- i) Safety
  - ii) Cognitive
  - iii) Self-actualization
  - iv) Aesthetic
- 1C. Reappearance of an apparently extinguished conditioned response after an interval in which the pairing of conditioned stimulus and conditioned stimulus has not been repeated
- i) Spontaneous Recovery
  - ii) Generalization
  - iii) Sensitization
  - iv) Discrimination
- 1D. The concept of traits is used to account for personal characteristics that are
- i) Shared by a group
  - ii) Relatively permanent and enduring
  - iii) Situation specific
  - iv) Influenced by the birth order
- 1E. The person responsible for the development and design of the first useful individual test of intelligence is
- i) Wechsler
  - ii) Galton
  - iii) Binet
  - iv) Terman

(1 mark × 5 = 5 marks)

**2. Write definitions on any FIVE of the following:**

- 2A. Introspection
- 2B. Functional fixedness
- 2C. Attention
- 2D. Illusion
- 2E. Aptitude
- 2F. Drive theory of motivation
- 2G. Motivated forgetting

(3 marks × 5 = 15 marks)

3. **Write short notes on any SIX of the following:**

- 3A. Types of problem solving
- 3B. Operant conditioning
- 3C. Triarchic theory of intelligence
- 3D. Rating scales as method of psychology
- 3E. Types of coping
- 3F. Organizing principles of perception
- 3G. Any two theories of motivation
- 3H. Differentiate aptitude and intelligence
- 3I. Trait theories of personality

(5 marks × 6 = 30 marks)

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

- 4A. Discuss theories of emotions
- 4B. Discuss types of attention and factors influencing attention
- 4C. Discuss attitude and attitude measurement

(15 marks × 2 = 30 marks)



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MANIPAL UNIVERSITY  
FIRST YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015  
SUBJECT: OCCUPATIONAL THERAPY FUNDAMENTALS  
(2011 BATCH)

Thursday, June 11, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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✍ Answer ALL the questions.

1. Describe the process of occupational therapy as explained by Occupational Therapy Practise Framework. (10 marks)
  
2. Describe 'leisure' as a tool for occupational therapy. (10 marks)
  
3. Write short notes on:
  - 3A. Describe occupation as a 'means'
  - 3B. Contributions by Eleanor Clarke Slagle
  - 3C. List out fifteen common conditions frequently treated by an occupational therapist
  - 3D. Define and types of 'activities of daily living'(5 marks × 4 = 20 marks)



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# MANIPAL UNIVERSITY

FIRST YEAR B.O.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: BASICS OF OCCUPATIONAL THERAPY ASSESSMENT  
(2011 BATCH)

Saturday, June 13, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

1. Define evaluation and explain the evaluation methods.

(2+8 = 10 marks)

2. Explain the principles of sensory evaluation.

(10 marks)

3. **Write short notes on:**

3A. Write any five psychological factors that influence muscle strength

3B. Define any five occupational therapy diagnosis in organ systems

3C. Methods of joint measurement

3D. Care of the hands before palpation

(5 marks × 4 = 20 marks)

