

MANIPAL UNIVERSITY**FIRST YEAR BOT/B.Sc. MRT/B.Sc. MLT/B.Sc. CVT/B.Sc. RT/B.Sc. RRT & DT/M.Sc. NMT
DEGREE EXAMINATION – JUNE 2016****SUBJECT: PHYSIOLOGY****(2015 BATCH (BOT 106)/2011 SCHEME/ /2011 SCHEME (PAPER II)/2015 & 2010 SCHEME/BDT 102/NR (PAPER I)**

Saturday, June 04, 2016

Time: 10.00-11.30 Hours.

Max. Marks: 40

✍ **Answer ALL questions.**✍ **Draw diagrams and flow charts wherever appropriate.****1. Essay Questions:**

- 1A. Mention three functions of middle ear. Describe any one.
- 1B. Mention the normal heart rate. Give its normal value. Mention two conditions each for tachycardia and bradycardia.
- 1C. List any four hormones secreted by anterior pituitary and explain three actions of any one hormone.
- 1D. Draw a labelled diagram of dorsal column tract and list the sensations carried by it.

(5 marks × 4 = 20 marks)

2. Short Answer Questions:

- 2A. Mention two functions of plasma proteins.
- 2B. Define and give the normal value of vital capacity.
- 2C. Give two differences between skeletal muscle and smooth muscle.
- 2D. Draw a labeled diagram of a nerve action potential.
- 2E. List two functions of liver.
- 2F. Define GFR. Give its normal value.
- 2G. List any two functions of hypothalamus
- 2H. Mention two actions of testosterone.
- 2I. List two functions of skin.
- 2J. Mention two hazards of mismatched blood transfusion.

(2 marks × 10 = 20 marks)



MLT

Reg. No.

MANIPAL UNIVERSITY

FIRST YEAR BPT/BOT/B.Sc. MLT/B.Sc. RT/B.Sc. CVT / B.Sc. RRT & DT/M.Sc. NMT
DEGREE EXAMINATION – JUNE 2016

SUBJECT: BIOCHEMISTRY

(NR/2015 & 2011 BATCH/ /2015 & 2010 SCHEME/2011 SCHEME/BDT 103/NR)

Tuesday, June 07, 2016

Time: 10.00-11.30 Hours

Max. Marks: 40

✍ **Answer ALL the questions.**

1. Describe the reactions of gluconeogenesis from lactate. (8 marks)
2. Classify enzymes with one example each. (6 marks)
3. **Write short notes on the following:**
 - 3A. Dietary fibers
 - 3B. Reactions of beta oxidation
 - 3C. Basal metabolic rate
 - 3D. Structure of DNA(4 marks × 4 = 16 marks)
4. **Answer the following:**
 - 4A. Define transamination reaction with an example.
 - 4B. Name two physiologically important products derived from tyrosine and tryptophan each.
 - 4C. Name the vitamin deficient in scurvy, rickets, beriberi and pellagra.
 - 4D. Write the normal serum levels of cholesterol and uric acid.
 - 4E. Define a buffer and give two examples.(2 marks × 5 = 10 marks)



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MANIPAL UNIVERSITY

FIRST SEMESTER B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: BLT 103: BASIC LABORATORY TECHNIQUES

Saturday, June 18, 2016

Time: 10.00-11.30 Hrs.

Max. Marks: 40

1. What are the various clinical specimens analyzed in a Biochemistry Laboratory? Discuss the organ function tests.

(4+6 = 10 marks)

2. **Write detailed notes on the following:**

2A. Procedure for cleaning the glassware's including pipettes.

2B. Universal precautions in handling the infectious materials

2C. Factors influencing immunogenicity

2D. Structure of RBC and their functions

(5 marks × 4 = 20 marks)

3. **Write short notes on the following:**

3A. Care of Water bath

3B. Blood sample used for clinical biochemistry analysis

3C. EDTA

3D. Quality assurance

3E. Features of ideal fixatives

(2 marks × 5 = 10 marks)



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MANIPAL UNIVERSITY

FIRST SEMESTER B.Sc. N.M.T./B OPTOM./B.Sc. H.I.A./B.Sc. M.L.T./B.Sc. P.F.T.
DEGREE EXAMINATION – JUNE 2016

SUBJECT: ANATOMY/GENERAL ANATOMY

(COMMON FOR NMT 103/BOP 101:GS-2012 BATCH/BHI 101:CBS-2015 & 2014/BLT 101/PFT 101:CBS)

Thursday, June 16, 2016

Time: 10.00-11.30 Hrs.

Max. Marks: 40

✍ Answer ALL the questions.

1. Name the parts of female reproductive system. Describe the uterus in detail.

(4+6 = 10 marks)

2. Write short notes on:

2A. Aorta

2B. Pancreas

2C. Vas deferens

2D. Thalamus

2E. Paranasal air sinus

2F. Fallopian tube / uterine tube

(5 marks × 6 = 30 marks)



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MANIPAL UNIVERSITY

FIRST SEMESTER B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: BLT 107: BIOMEDICAL INSTRUMENTATION

Tuesday, June 21, 2016

Time: 10.00-11.30 Hrs.

Max. Marks: 40

- ✍ Answer ALL questions.
- ✍ Draw diagrams if necessary.

1. Define chromatography. Classify chromatography techniques. Discuss Thin layer Chromatography.

(2+2+6 = 10 marks)

2. Write detailed notes on:

- 2A. SDS-PAGE
- 2B. Monochromators
- 2C. pH meter
- 2D. Fluorescent microscope

(5 marks × 4 = 20 marks)

3. Write short notes on:

- 3A. Applications of centrifuge
- 3B. Indirect ELISA
- 3C. Vortex mixer
- 3D. Incubator
- 3E. Blood pCO₂ measurement

(2 marks × 5 = 10 marks)

