

**MANIPAL UNIVERSITY****FIRST YEAR B.Sc. R.T./B.Sc. M.R.T./B.Sc. C.V.T./ B.Sc. R.R.T & D.T./M.Sc. N.M.T.  
DEGREE EXAMINATION – JUNE 2016****SUBJECT: ANATOMY****(2015 & 2010 SCHEME/2011 SCHEME/2011 SCHEME/BDT 101/NR**

Thursday, June 02, 2016

Time: 10.00-11.30 Hrs.

Max. Marks: 40

**✍ Answer ALL the questions.**

1. Name the parts of gastrointestinal system. Describe the stomach in detail.

(5+5 = 10 marks)

2. **Write short notes on:**

2A. Urinary bladder

2B. Fallopian tube / uterine tube

2C. Synovial joints

2D. Spinal cord

2E. Pharynx

2F. Gall bladder

(5 marks × 6 = 30 marks)



**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 &amp; 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)



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)



**MANIPAL UNIVERSITY****FIRST YEAR B.Sc. RRT & DT DEGREE EXAMINATION – JUNE 2016**  
**SUBJECT: BDT 104 – OVERVIEW OF RENAL FAILURE AND BASICS OF DIALYSIS THERAPY, RENAL REPLACEMENT THERAPY**

Thursday, June 09, 2016

Time: 10.00-13.00 Hrs.

Max. Marks: 80

**1. Long essay questions.**

- 1A. Explain the causes of anemia in chronic kidney disease and the role of epoietins in the treatment of anemia.
- 1B. Describe the complications of acute kidney injury.
- 1C. What is the importance of the Hemodialysis water treatment plant? Discuss any two of the components.

(10 marks × 3 = 30 marks)

**2. Short essay questions.**

- 2A. How is water distributed in the body?
- 2B. Write a note on acquired immunity.
- 2C. Illustrate the vitamin D pathway.
- 2D. List the functions of the kidney. What is glomerular filtration rate?
- 2E. Describe the importance of blood grouping and cross matching.
- 2F. Explain living donor transplantation.

(5 marks × 6 = 30 marks)

**3. Short notes questions.**

- 3A. What are the complications of hemodialysis catheter insertion?
- 3B. Mention four complications of chronic kidney disease.
- 3C. What are the methods of measuring blood pressure?
- 3D. Name four causes of acute kidney injury.
- 3E. What is convection?
- 3F. What are the modalities of renal replacement therapy?
- 3G. What are the stages of chronic kidney disease?
- 3H. What are the side effects of heparin?
- 3I. What is plasmapheresis?
- 3J. Define acute kidney injury.

(2 marks × 10 = 20 marks)

