

RT

Reg. No.

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)



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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)



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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 YEAR B.Sc. R.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: PATIENT CONTACT TECHNIQUES (2015 & 2010 SCHEME)

Thursday, June 09, 2016

Time: 10.00-13.00 Hrs.

Max. Marks: 80

✍ **Long Notes:**

1. What is the significance of electrolyte management in the critically ill patients? Write the normal values of any four electrolytes and causes of increase and decrease of each electrolyte in detail. Explain the types of WBC with normal value.

(16 marks)

2. Describe the universal precautions taken when in contact with a patient with retroviral illness.

(16 marks)

3. **Short Notes:**

3A. Chest topography

3B. Heart sounds

3C. Chest physical therapy

3D. FBAO

3E. Breathing exercises

3F. Postural drainage

(8 marks × 6 = 48 marks)



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FIRST YEAR B.Sc. R.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: RESPIRATORY THERAPY SCIENCE – I
(2015 & 2010 SCHEME)

Saturday, June 11, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Draw diagrams wherever necessary.**

✍ **Answer the following questions.**

1. Discuss transcutaneous monitoring.

(16 marks)

2. Discuss the indications for aerosol therapy. Explain the use of meter dose inhaler.

(8+8 = 16 marks)

3. **Write short notes on:**

3A. Pressure regulators

3B. Oxygen Flowmeters

3C. Indications and complications of oxygen therapy

3D. Capnography

3E. Oxygen cylinder

3F. Pulse oximetry

(8 marks × 6 = 48 marks)



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FIRST YEAR B.Sc. R.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: PHARMACOLOGY
(2010 SCHEME)

Monday, June 13, 2016

Time: 10.00 – 13.00 Hrs.

Max. Marks: 80

1. Describe the different routes of administration with one example for each route.
(6+4 = 10 marks)
2. List four aminoglycosides and their side effects.
(5+5 = 10 marks)
3. What are sedatives? Classify sedatives and give two uses of sedatives.
(3+5+5 = 13 marks)
4. How do you classify diuretics? Write four indications of diuretics.
(5+5 = 10 marks)
5. What do you mean by congestive heart disease (CHD)? What are the drugs used for CHD?
(3+7 = 10 marks)
6. Classify drugs used in bronchial asthma. Mention the mechanism of action of anti-cholinergic bronchodilators.
(7+5 = 12 marks)
7. **Describe the following:**
 - 7A. Corticosteroids
 - 7B. H₁ antihistamines
 - 7C. Beta Blockers

(5 marks × 3 = 15 marks)

