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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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)

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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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FIRST YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER IV – ELECTROCARDIOGRAM

(2011 SCHEME)

Thursday, June 09, 2016

Time: 10.00-11.30 Hrs. Max. Marks: 40

- **Answer ALL the questions.**
- **Draw the diagram wherever necessary.**

1. Explain the ECG findings of Left Bundle Branch Block and Right Bundle Branch Block.

2. Explain wide complex Tachycardia in detail.

3. What are frontal plane leads? Explain Einthoven triangle.

4. Explain the ECG findings in Pulmonary embolism and Pericardial effusion.

5. Explain differentiation between narrow and wide complex Tachycardia.

(8 marks × 5 = 40 marks)

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FIRST YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER V – BASICS IN CARDIOLOGY

(2011 SCHEME)

Saturday, June 11, 2016

Time: 10.00-11.30 Hrs. Max. Marks: 40

- **Answer ALL the questions.**
- **Draw the diagram wherever necessary.**

1. Embryological development of heart tube.

2. Explain the conduction system of the heart.

3. Explain the analysis of Jugular venous pulsation (JVP).

4. Explain anatomy of LV and features of ventricular septum.

5. Draw a diagram and explain arteries of the lower extremities.

(8 marks × 5 = 40 marks)