Reg. No.										

MANIPAL UNIVERSITY

FIRST YEAR B.Sc. M.L.T./ B.Sc. N.M.T./ B.Sc. R.T./ B.Sc. M.I.T./ B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: ANATOMY

Tuesday, May 29, 2012

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

Answer ALL the questions.

1. Name the parts of urinary system. Describe the right kidney.

(2+6 = 8 marks)

2. Name the parts of gastrointestinal tract. Describe the stomach in detail.

(2+6 = 8 marks)

3. **Write briefly on:**

3A. Panaceas

3B. Testis

3C. CSF circulation

3D. Fallopian tube

3E. Structure of a typical synovial joint

3F. Arch of aorta

3G. Trachea

3H. Thin skin

(3×8 = 24 marks)

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FIRST YEAR B.O.T. /B.Sc. M.L.T./B.Sc. C.V.T/ B.Sc. MIT/ B.Sc. R.T./B.Sc. N.M.T/ B.Sc. OPT. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PHYSIOLOGY

Thursday, May 31, 2012

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

✍ **Answer ALL questions. Draw diagrams wherever necessary.**

1. Essay questions:

1A. Draw a labeled diagram of the nerve action potential. Mention the ionic basis for the different phases.

1B. In the form of a flow chart write the sequence of events occurring during the excitation contraction on coupling of a skeletal muscle.

1C. Describe the changes seen in the ovary during menstrual cycle.

1D. Explain the various types of movements in the small intestine.

(5×4 = 20 marks)

2. Write short answers for the following:

2A. What are anticoagulants? Mention any two anticoagulants.

2B. Mention any two functions of basal ganglia.

2C. Write any two properties of cardiac muscle.

2D. Define cardiac output and give the normal value.

2E. Define alveolar ventilation and pulmonary ventilation.

2F. Name the hormones of posterior pituitary. Mention one action of any one hormone

2G. Mention the cause and two features of clinical features of diabetes mellitus.

2H. Define GFR and mention the normal value.

2I. Draw a diagram to depict a reflex arc.

2J. List any two common errors of refraction. Describe any one.

(2×10 = 20 marks)

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FIRST YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PAPER III – BIOCHEMISTRY

Saturday, June 02, 2012

Time: 10.00-11.30 Hours Max. Marks: 40

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

1. Discuss β-oxidation of palmitic acid under the following headings:

1A Site and sub-cellular site

1B. Activation and transport

1C. Reactions

(1+3+4 = 8 marks)

2. Describe the complete digestion of carbohydrates in the GIT.

(6 marks)

3. **Answer the following:**

3A. Explain with diagrams the secondary structure of proteins.

3B. Define isoenzymes and explain the isoenzymes of LDH with its clinical significance.

3C. Write the reactions of the four key enzymes of gluconeogenesis.

3D. Discuss the RDA, sources and biochemical functions of vitamin D.

(4×4 = 16 marks)

4. **Answer the following:**

4A. Define steatorrhea and give its causes.

4B. Write a note on the regulation of glycolysis.

4C. Classify amino acids based on nutritional requirement with ONE example each.

4D. Define specific dynamic action of food and give values for the major macronutrients.

4E. Give normal serum levels of glucose in fasting and post-prandial states.

(2×5 = 10 marks)

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FIRST YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PAPER IV – ELECTROCARDIOGRAM

Tuesday, June 05, 2012

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

Answer all the Questions, Draw the Diagram wherever necessary.

1. Explain ECG findings in Trifasicular block.

2. What are the different phases of Pericarditis? What is the ECG manifestation?

3. How do you approach wide complex Tachycardia?

4. How do you localize Myocardial infarction by ECG?

5. How do you differentiate Atrial from ventricular premature beats?

(8×5 = 40 marks)

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FIRST YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY/JUNE 2012

SUBJECT: PAPER V – BASICS IN CARDIOLOGY

Thursday, June 07, 2012

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

✍ **Answer all the questions. Draw the diagram wherever necessary.**

1. Explain the Aortic arch formation in Embryo.

2. Explain the relation between the arm and bladder size in different groups of patients in BP measurement.

3. Describe the coronary artery anatomy.

4. Describe Action potential of Ventricular and SA node muscle cell.

5. Explain semi lunar valve anatomy.

(8×5 = 40 marks)