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## 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 2009**

**SUBJECT: ANATOMY**

Monday, May 18, 2009

Time: 10.00-11.30 Hrs.

Max. Marks: 40

1. List the parts of female reproductive system. Describe the position, parts, relations and blood supply of the uterus.

(2+1+2+2+1 = 8 marks)

2. Explain the arterial supply and venous drainage of the heart.

(4+4 = 8 marks)

3. Answer briefly on:

- 3A. Skeletal muscle.
- 3B. Nasal septum.
- 3C. Superior vena cava.
- 3D. Nerve supply of tongue.
- 3E. Ureter.
- 3F. Right suprarenal gland.
- 3G. Cerebrospinal fluid.
- 3H. Corpus callosum.

(3×8 = 24 marks)



**MANIPAL UNIVERSITY****FIRST YEAR B.Sc. M.I.T./ B.Sc.C.V.T. DEGREE EXAMINATION – MAY 2009****SUBJECT: PHYSIOLOGY**

Tuesday, May 19, 2009

Time: 10.00-11.30 Hrs.

Max. Marks: 40

**1. Essay questions:**

- 1A. What is Landsteiner's Law? Explain its application in ABO and Rh system.
- 1B. Describe the events in the second phase of deglutition.
- 1C. Describe the mechanism of skeletal muscle contraction.
- 1D. Describe the regulation of thyroid hormone secretion.

(5×4 = 20 marks)

**2. Write short answer for the following:**

- 2A. List four functions of WBCs.
- 2B. Draw a labeled diagram of the nerve action potential.
- 2C. Name four different types of transport mechanism across the cell membrane.
- 2D. Define refractory period. Mention its significance in cardiac muscle.
- 2E. Define hypoxia. Name different types of hypoxia.
- 2F. Name different types of intestinal movement and mention their significance.
- 2G. Write four features of acromegaly.
- 2H. Name two tests used to detect the day of ovulation.
- 2I. Name any two sensory tracts and the sensations carried by them.
- 2J. Write four functions of hypothalamus.

(2×10 = 20 marks)



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**FIRST YEAR B.P.T./B.O.T/ 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 2009**

**SUBJECT: BIOCHEMISTRY  
(NEW REGULATIONS)**

Wednesday, May 20, 2009

Time: 10.00-11.30 Hours

Max. Marks: 40

1. Explain the  $\beta$ -oxidation of palmitic acid. Add note on its energetic. (5+2 = 7 marks)
2. Describe the pathway of urea synthesis. Mention the disorders of urea cycle with defect. (4+2 = 6 marks)
3. Give an account of glycogen metabolism. (3+3 = 6 marks)
4. Discuss protein energy malnutrition in detail. (7 marks)
5. Explain how substrate concentration affects enzyme activity. (4 marks)
6. Write the steps involved in the activation of vitamin D in the body. (3 marks)
7. Write note on Dietary Fibers. (3 marks)
8. Explain Essential fatty acids under the following Definition, examples and functions. ( $\frac{1}{2}+1+2\frac{1}{2} = 4$  marks)



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## MANIPAL UNIVERSITY

FIRST YEAR B.Sc. C.V.T. DEGREE EXAMINATION – MAY 2009

SUBJECT: ELECTRODIAGNOSIS AND HOLLER RECORDING AND BP RECORDING

Thursday, May 21, 2009

Time: 10.00-13.00 Hrs.

Max. Marks: 80

**Answer all the Questions, Label the diagram wherever necessary:**

1. Explain anatomy and circulation of coronary arteries with a labeled diagram. (20 marks)
2. Explain anatomy and physiology of conduction system of the heart. (20 marks)
- 3A. Explain the ECG differentiation between SVT and VT.
- 3B. Explain normal and abnormal heart sounds.
- 3C. Explain the ECG Criteria for LVH.
- 3D. What are the ECG findings in VPC's and APC's?
- 3E. Explain ventricular tachycardia. (8×5 = 40 marks)

