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## MANIPAL UNIVERSITY

FIRST YEAR B.Sc. R.T./ B.Sc. M.I.T./B.Sc.C.V.T. DEGREE EXAMINATION – AUGUST 2009

SUBJECT: ANATOMY

Wednesday, August 05, 2009

Time: 10.00-11.30 Hrs.

Max. Marks: 40

1. Describe the boundaries of the mediastinum and list its contents.

(4+4 = 8 marks)

2. Describe the parts, relations and blood supply of pancreas.

(2+4+2 = 8 marks)

3. Answer briefly on:

3A. Classify cartilage with examples

3B. Nasal septum

3C. Right atrium

3D. Prostate

3E. Pituitary gland

3F. Position, relations and blood supply of left suprarenal gland

3G. External features of medulla oblongata

3H. Internal capsule.

(3×8 = 24 marks)



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

Thursday, August 06, 2009

Time: 10.00-11.30 Hrs.

Max. Marks: 40

**1. Answer the following questions:**

1A. Describe erythropoiesis under the following headings:

- i) Definition
- ii) Stages
- iii) Regulation

1B. Give the cause for diabetes mellitus. List four clinical features of the same.

1C. Draw a labeled graph of oxygen hemoglobin dissociation curve. Mention two factors that shift the curve to the right.

1D. Describe the short-term regulation of blood pressure.

(5×4 = 20 marks)

**2. Answer the following questions:**

2A. Define facilitated diffusion. Give an example.

2B. Define cardiac output. Mention the normal value.

2C. Mention the forms of carbon dioxide transport.

2D. List two functions of basal ganglia.

2E. Mention two indicators of ovulation.

2F. Name two temporary methods of contraception in females.

2G. Enumerate two functions of skin.

2H. Define Glomerular Filtration Rate (GFR). Give its normal value.

2I. Mention two functions of liver.

2J. Name two refractory errors of the eye. Mention the cause for any ONE.

(2×10 = 20 marks)



**MANIPAL UNIVERSITY****FIRST YEAR B.P.T./ B.Sc. R.T./ B.Sc.C.V.T DEGREE EXAMINATION – AUGUST 2009****SUBJECT: BIOCHEMISTRY  
(NEW REGULATIONS)**

Friday, August 07, 2009.

Time: 10.00-11.30 Hours

Max. Marks: 40

1. Classify enzymes giving one example for each class. (6 marks)
2. Describe the biochemical changes occurring after intake of milk in a person with lactose intolerance. (4 marks)
3. Write the reactions of the citric acid cycle. (6 marks)
4. Describe the process of digestion of dietary lipids in the GI tract. (5 marks)
5. Classify amino acids on the basis of their metabolic fate giving examples for each class. (3 marks)
6. Give the steps involved in the beta oxidation of palmitic acid. (6 marks)
7. Define dietary fibers and describe their role in nutrition. (3 marks)
8. Give the dietary sources, RDA and describe the absorption of iron. (3 marks)
9. Mention the normal serum levels and one condition in which they are altered for glucose, protein, urea and cholesterol. (4 marks)

