

MANIPAL UNIVERSITY**FIRST YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2008****SUBJECT: ANATOMY****(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Monday, June 09, 2008

Time available: 3 Hours.

Max. Marks: 80

✍ All questions are compulsory.

1. Describe the shoulder joint under the following headings:

- 1A. Bones taking part.
- 1B. Capsule and ligaments.
- 1C. Movements and muscles producing them.
- 1D. Applied anatomy.

(3+9+5+3 = 20 marks)

2. Describe the Sciatic nerve under the following headings:

- 2A. Origin and course.
- 2B. Distribution.
- 2C. Effect of injury.

(8+6+6 = 20 marks)

3. Write short notes on:

- 3A. Cerebrospinal fluid.
- 3B. Internal structure of midbrain.
- 3C. Functional areas of cerebrum.
- 3D. Cerebellum.
- 3E. Thalamus.

(5×5 = 25 marks)

4. Write short notes on:

- 4A. Clavicle.
- 4B. Coronary sinus.
- 4C. Left lung.
- 4D. Wrist drop.
- 4E. Deltoid muscle.

(3×5 = 15 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.T. DEGREE EXAMINATION – JUNE 2008

SUBJECT: PHYSIOLOGY

Tuesday, June 10, 2008

Time available: 3 Hours.

Max. Marks: 80

1. Essay:

- 1A. Describe the origin and conduction of impulse in the human heart. Relate these events to waves of ECG.
- 1B. Draw labeled diagram showing the origin, course and termination of the corticospinal pathway. Mention three characteristic features of damage to this pathway.

(10+(7+3) = 20 marks)

2. Write short notes on the following:

- 2A. Cerebrospinal fluid.
- 2B. Neuromuscular junction.
- 2C. Functions of skin.
- 2D. Carbon dioxide transport in blood.
- 2E. Types of transport mechanisms across cell membrane.
- 2F. Composition of blood.
- 2G. Salivary secretion-composition and regulation.
- 2H. Ovarian hormones.

(5×8 = 40 marks)

3. Write brief answers to the following:

- 3A. List any four functions kidney.
- 3B. Define ovulation. Mention two methods to detect the time of ovulation.
- 3C. Name four hormones that increase plasma glucose level.
- 3D. List two adverse effects of mismatched blood transfusion.
- 3E. Define sensory receptor. List two properties of sensory receptor.
- 3F. What is hemophilia?
- 3G. List two functions of middle ear.
- 3H. Draw a diagram of the motor unit.
- 3I. Mention two causes of tachycardia.
- 3J. Define the following:

- i) Hypoxia ii) Apnea

(2×10 = 20 marks)



MANIPAL UNIVERSITY**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.****DEGREE EXAMINATION – JUNE 2008****SUBJECT: BIOCHEMISTRY
(NEW REGULATIONS)**

Wednesday, June 11, 2008

Time available: 1½ Hours

Max. Marks: 40

✍ **Answer ALL questions.**

1. Classify polysaccharides. Give TWO examples for each with their functions. (4 marks)
2. Write the reactions of the citric acid cycle. Add a note on its energetics. (8 marks)
3. Mention TWO physiologically important compounds each derived from glycine, tyrosine, histidine and tryptophan. (4 marks)
4. Give the RDA, sources, biochemical functions and disorders for Vitamin A. (6 marks)
5. Give the normal serum level and TWO conditions in which they are altered for glucose and protein. (3 marks)
6. Write the reactions involved in the oxidation of palmitic acid. (6 marks)
7. What is the diagnostic importance of serum creatine kinase and alanine transaminase? (3 marks)
8. What is biological value of a protein? Mention protein sources with high biological value. (2 marks)
9. Mention the causes for lactose intolerance. Describe the clinical features and biochemical changes occurring after the intake of milk in these patients. (4 marks)



MANIPAL UNIVERSITY**FIRST YEAR B.P.T. DEGREE EXAMINATION – JUNE 2008****SUBJECT: EXERCISE THERAPY – I
(NEW REGULATION)**

Thursday, June 12, 2008

Time available: 3 Hours

Max. Marks: 80

☞ Answer ALL the questions.**1. Essay Questions:**

- 1A. Write in detail the types of suspension therapy and its use in physiotherapy.
1B. Write in detail the tapotement techniques used in massage.

(10×2 = 20 marks)

2. Short notes:

- 2A. What are the different types of muscle contraction?
2B. Write two starting positions and explain.
2C. Write the principles of relaxation technique.
2D. Write the principles of passive movements.
2E. Write the effects and uses of hydrotherapy.
2F. Write the advantages of group recreational exercise program.
2G. What are the merits and demerits in giving home program?
2H. What are vitals signs? And write the method of measuring blood pressure.

(5×8 = 40 marks)

3. Brief answers:

- 3A. Define Newton's second law
3B. Define levers
3C. Write the different planes of movements
3D. Mention any four Derived position of standing
3E. Define Pulleys
3F. What is limb length discrepancy?
3G. What is mass exercise?
3H. Define Reflex arc.
3I. Mention any four cortical sensation.
3J. What is Goniometer and write its use?

(2×10 = 20 marks)

