

MANIPAL UNIVERSITY**FIRST YEAR B.P.T./B.O.T. DEGREE EXAMINATION – MAY 2009****SUBJECT: ANATOMY****(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Monday, May 18, 2009

Time: 10.00-13.00 Hours.

Max. Marks: 80

✍ Answer the following questions:

1. Describe the shoulder joint under the following headings:

1A. Type and subtype.

1B. Ligaments.

1C. Movements and muscles producing each of these movements.

(2+8+10 = 20 marks)

2. Describe the femoral nerve under the following headings:

2A. Origin and course.

2B. Branches and distribution.

2C. Effect of injury.

(6+10+4 = 20 marks)

3. Write short notes on:

3A. Functional areas of superolateral surface of the cerebrum.

3B. Corticospinal tracts.

3C. Thalamus.

3D. Corpus striatum.

3E. Fourth ventricle.

(5×5 = 25 marks)

4. Write short notes on:

4A. Cavity of larynx.

4B. Venous drainage of the heart.

4C. Uterine tube.

4D. Dorsum of tongue.

4E. Anal canal.

(3×5 = 15 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.T.
DEGREE EXAMINATION – MAY 2009

SUBJECT: PHYSIOLOGY

Tuesday, May 19, 2009

Time: 10.00-13.00 Hours.

Max. Marks: 80

1. Explain the functions of different areas of cerebral cortex. (10 marks)

2. Describe mechanism of breathing. (10 marks)

3. Write briefly on the following:
 - 3A. Enumerate any four properties of cardiac muscle. Explain briefly any two of them.
 - 3B. Define venous return. Name any four factors influencing venous return. Explain how venous return affects cardiac output.
 - 3C. Draw and label the diagram of the cross section of the human eye. Mention the functions of any two structures.
 - 3D. Explain the actions of thyroid hormones on growth and development.
 - 3E. Mention the function of T-tubules and terminal cisternae of sarcotubular system. What are the sources of energy for muscular contraction?
 - 3F. Describe the structure and functions of the respiratory membrane.
 - 3G. Describe the functions of basal ganglia. Mention the clinical features of a disease due to a lesion in it.
 - 3H. Draw and label the normal electrocardiogram. Write a note on P-R interval. (5×8 = 40 marks)

4. Write short answer to each of the following:
 - 4A. Mention two actions of estrogen.
 - 4B. Define deglutition. Mention the stages of deglutition.
 - 4C. What is hemophilia? What is its cause?
 - 4D. How much is the normal body temperature? Name ONE change in the body when exposed to cold.
 - 4E. Mention the effects of sectioning of a motor nerve.
 - 4F. List the functions of placenta.
 - 4G. List the hormones which increase blood glucose level.
 - 4H. Name the lymphatic organs in the body. Mention the function of one of them.
 - 4I. What is meant by oxygen carrying capacity of blood? Give its normal value.
 - 4J. Mention the functions of saliva. (2×10 = 20 marks)



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(NEW REGULATIONS)**

Wednesday, May 20, 2009

Time: 10.00-11.30 Hours

Max. Marks: 40

1. Explain the β -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)



MANIPAL UNIVERSITY**FIRST YEAR B.P.T. DEGREE EXAMINATION – MAY 2009****SUBJECT: EXERCISE THERAPY – I
(NEW REGULATION)**

Thursday, May 21, 2009

Time: 10.00-13.00 Hours

Max. Marks: 80

✍ Answer all questions.**1. Essay Questions:**

1A. Define suspension therapy. Explain the types of suspension. Explain the principles of suspension therapy.

(2+3+5 = 10 marks)

1B. Define Massage. Classify massage manipulations. Mention the principles of massage. Mention any four indications for face massage.

(2+3+3+2 = 10 marks)

2. Short notes:

2A. Describe the muscle activity in standing.

2B. Describe the principles of measurement of blood pressure.

2C. Describe the types of deep sensation and the method of its assessment.

2D. Explain the principles of relaxation.

2E. What are the effects and uses of passive movements?

2F. Explain reflex arc and types of reflexes.

2G. What are the principles of goniometry?

2H. Describe the use of springs in physiotherapy.

(5×8 = 40 marks)

3. Brief answers:

3A. Explain second order lever with example in human body.

3B. Define angle of pull.

3C. Types of pulleys.

3D. Explain apparent limb length measurement.

3E. Mention any TWO effects of hydrotherapy.

3F. Advantages of group exercise.

3G. Merits of home program.

3H. Mention any TWO effects of clapping.

3I. Define mechanical advantage.

3J. Define Center of Gravity.

(2×10 = 20 marks)

