Reg. No.

# 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)

- Write short notes on:
- 3A. Functional areas of superolateral surface of the cerebrum.
- 3B. Corticospinal tracts.
- 3C. Thalamus.
- 3D. Corpus striatum.
- 3E. Fourth ventricle.

 $(5 \times 5 = 25 \text{ marks})$ 

- Write short notes on:
- 4A. Cavity of larynx.
- 4B. Venous drainage of the heart.
- 4C. Uterine tube.
- Dorsum of tongue.
- 4E. Anal canal.

 $(3\times5 = 15 \text{ marks})$ 



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# 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)

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.
- 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.

 $(5\times8 = 40 \text{ marks})$ 

- Write short answer to each of the following:
- 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.

 $(2\times10=20 \text{ marks})$ 



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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 Explain the β-oxidation of palmitic acid. Add note on its energetic. (5+2 = 7 marks)Describe the pathway of urea synthesis. Mention the disorders of urea cycle with defect. (4+2 = 6 marks)Give an account of glycogen metabolism. 3. (3+3 = 6 marks)Discuss protein energy malnutrition in detail. 4. (7 marks) Explain how substrate concentration affects enzyme activity. 5. (4 marks) Write the steps involved in the activation of vitamin D in the body. 6. (3 marks) Write note on Dietary Fibers. 7. (3 marks)

Explain Essential fatty acids under the following Definition, examples and functions. 8.

 $(\frac{1}{2}+1+2\frac{1}{2}=4 \text{ marks})$ 

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#### FIRST YEAR B.O.T. DEGREE EXAMINATION - MAY 2009

SUBJECT: PSYCHOLOGY - I

Thursday, May 21, 2009

| Time: 10.00-13.00 Hrs. | Max. | Marks: 80 |
|------------------------|------|-----------|

- Answer ALL questions.
- All questions carry equal marks.
- 1. What are the normal styles of personality?
- 2. What are the stages of language development?
- 3. Discuss perceptual processes.
- 4. What are the components of cognitive and observational learning?
- 5. How is man motivated by biological factors?
- 6. What are the theories of memory and forgetting?
- 7. What are the coping mechanisms in different types of conflicts?
- 8. Discuss Kohlberg's theory of moral development.



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### FIRST YEAR B.O.T. DEGREE EXAMINATION - MAY 2009

SUBJECT: OCCUPATIONAL THERAPY – I (Therapeutic Activities)

Friday, May 22, 2009

Time: 10.00-13.00 Hrs.

Max. Marks: 80

#### Answer ALL the questions.

Define Group. Explain the observation and interaction process in the practice of group work.

(3+12 = 15 marks)

Explain the concept of occupational adaptation. Describe the adaptive response mechanism with schematic representation.

(5+10 = 15 marks)

Define occupational therapy and in detail explain the types of occupational therapy practice.

(3+12 = 15 marks)

 Define and describe therapeutic adaptations. Discuss the different types of therapeutic adaptations used in Occupational Therapy.

(3+12 = 15 marks)

- Short notes:
- 5A. Illustrate neatly the Brachial Plexus.
- 5B. Write short note on AIOTA.
- Evidence based practice in occupational therapy.
- 5D. OCAIRS.

 $(5\times4=20 \text{ marks})$ 

