Reg. No.

# MANIPAL UNIVERSITY

# FIRST YEAR B.P.T./B.O.T. DEGREE EXAMINATION – AUGUST 2010

#### SUBJECT: ANATOMY

#### (COMMON FOR BOTH OLD & NEW REGULATIONS)

Monday, August 23, 2010

Time: 10.00-13.00 Hours.

Max. Marks: 80

 Describe the origin, root value, course and distribution of radial nerve and its terminal branches. Add a note on its applied anatomy.

(1+1+6+10+2 = 20 marks)

- 2. Describe the arches of foot under the following headings:
- 2A. Classification
- 2B. Bones taking part
- 2C. Factors maintaining the arches
- 2D. Functions
- 2E. Applied anatomy

(2+3+10+3+2=20 marks)

- 3. Explain briefly on:
- 3A. Midbrain
- 3B. Dural folds
- 3C. Functional lobes and important connections of cerebellum
- 3D. Corpus callosum
- 3E. Basal nuclei

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

- 4. Write short notes on:
- 4A. Trachea
- 4B. Pituitary gland
- 4C. Spermatic cord
- 4D. Pericardium
- 4E. Parotid gland

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

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# FIRST YEAR B.P.T./B.O.T./B.Sc.N.M.T/B.Sc.R.T. DEGREE EXAMINATION – AUGUST 2010 SUBJECT: PHYSIOLOGY

Tuesday, August 24, 2010

Time: 10:00-13:00 Hours.

Max. Marks: 80

#### Answer all questions.

 Define blood pressure and give the normal values in an adult. Explain the short term regulation of blood pressure.

(10 marks)

Classify white blood cells. Give their percentage distribution in an adult. Draw neat labeled diagrams of any two of them and explain their functions.

(10 marks)

# 3. Write short notes on the following:

- 3A. Oxygen transport
- 3B. Diabetes mellitus
- 3C. Milk ejection reflex
- 3D. Blood groups
- 3E. Excitation-Contraction coupling in skeletal muscle
- 3F. Functions of placenta.
- 3G. Mechanism of hydrochloric acid secretion in the stomach
- 3H. Functions of middle ear

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

# Write brief answers to the following questions:

- 4A. Mention two factors affecting cardiac output.
- 4B. Name the photoreceptors in the eye. Mention their functions.
- 4C. Mention any two hormones secreted by the anterior pituitary and mention one action of each.
- 4D. Mention the functions of platelets.
- 4E. Define 'erythropoiesis'. Mention two factors regulating it.
- 4F. Draw a labelled diagram of a nephron.
- 4G. List four factors increasing heart rate.
- 4H. Define 'Hypoxia'. Mention any two types of hypoxia.
- 41. Enumerate two functions of hypothalamus.
- 4J. List two differences between upper motor neuron lesion and lower motor neuron lesion.

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



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# FIRST YEAR B.P.T/ B.O.T/ B.Sc. N.M.T./ B.Sc. R.T./ B.Sc. M.I.T./ B.Sc.C.V.T DEGREE EXAMINATION – AUGUST 2010

# SUBJECT: BIOCHEMISTRY (NEW REGULATIONS)

Wednesday, August 25, 2010

Time: 10.00-11.30 Hours

Max. Marks: 40

- Answer ALL questions.
- Braw diagrams and flow charts wherever appropriate.
- Discuss urea cycle under the following headings:
- 1A. Site and subcellular site.
- 1B. Reactions.
- Mention TWO disorders of urea cycle and their defective/deficient enzyme.

(1+5+2 = 8 marks)

Classify enzymes giving ONE example for each class.

(6 marks)

- 3. Write briefly on:
- 3A. Reactions of ketolysis.
- 3B. FOUR differences between marasmus and kwashiorkor.
- 3C. Causes and biochemical findings of metabolic acidosis.
- 3D. Dietary sources and functions of vitamin C.

 $(4\times4=16 \text{ marks})$ 

- Explain the following with an example
- Essential fatty acids.
- 4B. Specific dynamic action.
- 4C. Positive nitrogen balance.
- 4D. Proenzymes.
- 4E. Mutual supplementation of proteins.

 $(2 \times 5 = 10 \text{ marks})$ 



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### FIRST YEAR B.O.T. DEGREE EXAMINATION - AUGUST 2010

SUBJECT: PSYCHOLOGY - I

Thursday, August 26, 2010

Time: 10:00-13:00 Hrs. Max. Marks: 80

- Answer ALL questions.
- All questions carry equal marks.
- 1. What is prejudice and discrimination? How does it influence our actions?
- Discuss theories of conditioning with suitable examples.
- 3. Define intelligence and discuss various theories of intelligence.
- 4. Discuss in detail the brain and behavior relationships.
- 5. Discuss perceptual process and highlight various laws of perception.
- Discuss various theories of motivation and mention the significance of primary and secondary motives.
- Discuss various methods employed in the field of psychology.
- 8. Define forgetting and discuss the factors that affect memory formation.



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# FIRST YEAR B.O.T. DEGREE EXAMINATION - AUGUST 2010

SUBJECT: OCCUPATIONAL THERAPY – I (Therapeutic activities)

Friday, August 27, 2010

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- Answer ALL the questions.
- Define Ethics? Discuss different terminologies under ethical issues used by OT practitioner.

(5+10 = 15 marks)

2. Explain occupation and discuss in detail the themes of occupational behavior approach.

(3+12 = 15 marks)

3. Explain in detail the areas of psychosocial and psychological practice in occupational therapy.

(15 marks)

 Ullustrate and explain the relationship between occupational performance and performance components. Discuss "Activity and exercise are at complementary ends of the same continuum".

(10+5 = 15 marks)

- 5. Short Notes:
- 5A. Definition of Occupational Therapy.
- 5B. Dos and don'ts in documentation of occupational therapy services.
- 5C. Non human environment.
- 5D. Sense of efficacy and self-esteem.

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

