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MANIPAL UNIVERSITY
FIRST YEAR B.P.T./B.O.T. DEGREE EXAMINATION – AUGUST 2015

SUBJECT: ANATOMY
(NR/2011 BATCH)

Wednesday, August 26, 2015

Time: 10.00-13.00 Hours.

Max. Marks: 80

- ✍ Answer the following questions.
- ✍ Draw diagrams wherever necessary.

1. Explain the brachial plexus under the following headings:

- 1A. Formation, trunks, cords and branches
- 1B. Applied anatomy

(16+4 = 20 marks)

2. Describe the femoral triangle under:

- 2A. Boundaries and contents
- 2B. Add a note on femoral sheath, femoral canal and femoral ring
- 2C. Applied anatomy

(10+7+3 = 20 marks)

3. Write briefly on:

- 3A. Floor of fourth ventricle
- 3B. Corpus callosum
- 3C. Circle of Willis
- 3D. Cross section of medulla at the level of pyramidal decussation
- 3E. Cerebrum

(5 marks × 5 = 25 marks)

4. Write short notes on:

- 4A. Periosteum
- 4B. Clavipectoral fascia
- 4C. Pericardium
- 4D. Difference between small and large intestine
- 4E. Microscopic structure of cardiac muscle

(3 marks × 5 = 15 marks)



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FIRST YEAR BOT / B.Sc. MLT / B.Sc. CVT / B.Sc. MIT / B.Sc. RT / B.Sc. NMT /
B.Sc. RRT & DT / B.Sc. MRT / DEGREE EXAMINATION – AUGUST 2015

SUBJECT: PHYSIOLOGY

Thursday, August 27, 2015

Time: 10.00 – 11.30 Hours.

Max. Marks: 40

✍ Answer ALL questions. Draw diagrams and flow chart wherever appropriate.

1. **Essay Questions:**

- 1A. Explain the intrinsic mechanism of blood clotting.
- 1B. Draw and label a normal electrocardiogram from limb lead II and mention the causes for each wave.
- 1C. Mention any three functions of cerebellum. List any two features of cerebellar lesion.
- 1D. List four actions of thyroid hormones. Name the condition that results due to deficiency of thyroid hormones in adults.

(5 marks × 4 = 20 marks)

2. **Short Answer Questions:**

- 2A. Describe rigor mortis
- 2B. Describe primary active transport mechanism with an example
- 2C. List two features of erythroblastosis fetalis
- 2D. What are the two different forms of carbon dioxide transport in blood?
- 2E. Define cardiac output. Mention its normal value
- 2F. Name the components of vestibular apparatus
- 2G. List any two functions of liver
- 2H. Mention any two actions of testosterone
- 2I. Define glomerular filtration rate. Give its normal value
- 2J. Mention two properties of sensory receptors

(2 marks × 10 = 20 marks)



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FIRST YEAR BPT / BOT / B.Sc. MLT / B.Sc. RT / B.Sc. MIT / B.Sc. CVT /
B.Sc. RRT & DT DEGREE EXAMINATION – AUGUST 2015

SUBJECT: BIOCHEMISTRY

Friday, August 28, 2015

Time: 10.00 – 11.30 Hours

Max. Marks: 40

✍ Answer ALL the questions.

✍ Draw diagrams and flow charts wherever appropriate.

1. Explain the oxidation of acetyl CoA in the TCA cycle and add a note on its energetics.
(8 marks)

2. Give a detailed account of the process of emulsification and absorption of lipids in the intestine.
(6 marks)

3. **Write short notes on the following:**
 - 3A. Classification of lipoproteins based on density and their functions
 - 3B. Ketolysis and its significance
 - 3C. Basal metabolic rate
 - 3D. Differences between DNA and RNA(4 marks × 4 = 16 marks)

4. Write brief answers for the following:
 - 4A. Give the Henderson- Hasselbalch equation of bicarbonate buffer system with normal values of the components.
 - 4B. Give normal serum level of calcium and mention THREE hormones involved in its regulation.
 - 4C. Define essential amino acids with THREE examples.
 - 4D. Classify polysaccharides giving ONE example each.
 - 4E. Describe the effect of temperature on enzyme activity with a suitable graph.
(2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY
FIRST YEAR B.O.T. DEGREE EXAMINATION – AUG/SEP 2015
SUBJECT: GENERAL PSYCHOLOGY
(2011 BATCH - NR)

Saturday, August 29, 2015

Time: 10:00 – 13:00 Hrs.

Max. Marks: 80

1. Choose the single best answer:

1A. Childhood Apperception test is a test of:

- | | |
|------------------|------------------|
| i) Personality | ii) Intelligence |
| iii) Temperament | iv) Memory |

1B. The span of short term memory:

- | | |
|------------------------------|-----------------------------|
| i) Five plus or minus two | ii) Three plus or minus two |
| iii) Seven plus or minus two | iv) Nine plus or minus two |

1C. The recording of the brain waves using electrodes place in the brain is:

- | | |
|----------|----------|
| i) ECG | ii) PET |
| iii) EEG | iv) GABA |

1D. Theory of interference is associated with:

- | | |
|---------------|---------------------------|
| i) Motivation | ii) Memory |
| iii) Emotion | iv) Behavior modification |

1E. Shaping is a technique that makes use of principle of:

- | | |
|---------------------------|-------------------------|
| i) Classical Conditioning | ii) Social learning |
| iii) Operant Conditioning | iv) Insightful learning |

(1 mark × 5 = 5 marks)

2. Write definitions on any FIVE of the following:

- 2A. Working memory
- 2B. Perceptual constancy
- 2C. Secondary traits
- 2D. Intelligence
- 2E. Aptitude
- 2F. Introspection
- 2G. Opponent process theory of emotion

(3 marks × 5 = 15 marks)

3. Write short notes on any SIX of the following:

- 3A. Any two personality assessment
- 3B. Factors influencing attention

- 3C. Experimental method in psychology
- 3D. Drive reduction theory
- 3E. Types of conflict
- 3F. Compare and contrast Schachter–Singer and Cannon Bard theories of emotion
- 3G. Influence of heredity and environment on intelligence
- 3H. Principles of Perceptual Organization
- 3I. Laws of learning

(5 marks × 6 = 30 marks)

4. **Write essay on any TWO of the following:**

- 4A. What is Reinforcement? Write an account on schedules of reinforcement.
- 4B. What is Problem solving? What are the different types of problems solving strategies?
- 4C. Define Psychology. Write an account on different branches of psychology.

(15 marks × 2 = 30 marks)



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MANIPAL UNIVERSITY

FIRST YEAR B.O.T. DEGREE EXAMINATION – AUG/SEP 2015

SUBJECT: OCCUPATIONAL THERAPY FUNDAMENTALS
(2011 BATCH- NR)

Monday, August 31, 2015

Time: 10:00 – 11:30 Hrs.

Max. Marks: 40

 **Answer ALL the questions.**

1. Describe five assumptions about human beings. (10 marks)
2. Discuss the outcomes of occupational therapy service programs and intervention. (10 marks)
3. **Short notes:**
 - 3A. Define 'occupational therapy'.
 - 3B. 'Equality' as an important personal value of an occupational therapist.
 - 3C. Write contributions by George Edward Barton.
 - 3D. Therapeutic use of occupations and activities described in the occupational therapy practise framework.

(5 marks × 4 = 20 marks)



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MANIPAL UNIVERSITY

FIRST YEAR B.O.T. DEGREE EXAMINATION – AUG/SEP 2015

SUBJECT: BASICS OF OCCUPATIONAL THERAPY ASSESSMENT
(2011 BATCH)

Tuesday, September 01, 2015

Time: 10:00 – 11:30 Hrs.

Max. Marks: 40

✍ Answer ALL the questions.

1. Define strength and describe the general procedures of manual muscle testing.
(2+8 = 10 marks)

2. What are the factors that influence the range of motion?
(10 marks)

3. Short Notes:

- 3A. Importance of touch sensation in self-care
- 3B. Describe essential elements for a successful interview
- 3C. Effects of palpation on the patient
- 3D. Define any five occupational therapy diagnosis in cognitive substrates
(5 marks × 4 = 20 marks)

