BPT

✍ Answer ALL questions.

✍ Illustrate your answers with diagrams wherever necessary.

1. Classify anemia. What are the biochemical investigations and peripheral blood smear picture in iron deficiency anemia.

(3+3+2 = 8 marks)

2. Mention the causative organism of Tuberculosis. Define primary and secondary Tuberculosis. Describe morphology of secondary pulmonary tuberculosis.

(1+2+4 = 7 marks)

3. Write short notes on:

3A. Gangrene

3B. Phagocytosis

3C. Osteoporosis

3D. Types of embolism

3E. Factors influencing fracture healing and its complications

(5 marks × 5 = 25 marks)

MANIPAL UNIVERSITY

SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/B.Sc. RRT & DT DEGREE EXAMINATION – JUNE 2015

SUBJECT: MICROBIOLOGY
(COMMON FOR 2010 SCHEME/2011 BATCH/2010 SCHEME/2011 SCHEME)

Wednesday, June 17, 2015

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ Answer all questions. Illustrate your answers with neat labeled diagram wherever necessary.

1. Describe the pathogenesis, laboratory diagnosis and prophylaxis of Tetanus.

(3+2+3 = 8 marks)

2. Define and classify immunity. Describe in detail about acquired immunity.

(1+2+4 = 7 marks)

3. Write short notes on:

3A. Bacterial growth curve

3B. Laboratory diagnosis of fungal infections

3C. Bacterial endocarditis

3D. Laboratory diagnosis of Hepatitis B virus infection

3E. Hot air oven

(5 marks × 5 = 25 marks)

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SECOND YEAR B.P.T./B.O.T./B.Sc. M.I.T./B.Sc. C.V.T./B.Sc. R.R.T. & D.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: PHARMACOLOGY
(COMMON FOR 2010 REGULATION/2011 BATCH/2012 SCHEME/2011 SCHEME)

Friday, June 19, 2015

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ **Answer the following questions:**

1.   **Define the following terms:**

1A. Biotransformation

1B. First pass metabolism

1C. Chemoprophylaxis

(2 marks × 3 = 6 marks)

2A. List three advantages and three disadvantages of oral route of drug administration.

2B. Describe the effects of adrenaline on: heart and blood vessels.

2C. List two bronchodilators used in asthma and explain the mechanism of action of any one of them.

2D. Describe three factors modifying drug action.

(3+3+3+3 = 12 marks)

3A. Name two antiplatelet drugs and mention two therapeutic uses of them.

3B. Write basis for combining levodopa and carbidopa in Parkinsonism.

3C. Describe mechanism of action of cotrimoxazole and mention its one use.

3D. List two therapeutic uses and two adverse effects of corticosteroids.

(2+2+2+2 = 8 marks)

4.   **Describe the following terms with one example:**

4A. Brand name of drug

4B. Synergism

4C. Local anesthetics

(2 marks × 3 = 6 marks)

5.   **Mention two drugs belonging to the following groups:**

5A. Sedatives

5B. ACE Inhibitors

5C. Hypolipidemics

(1 mark × 3 = 3 marks)

6. **List two drugs used in the following conditions:**

6A. Cough
6B. Type 2 Diabetes mellitus
6C. Peptic ulcer
6D. Angina
6E. HIV infection

(1 mark × 5 = 5 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2015
SUBJECT: ELECTROTHERAPY
(2010 REGULATION)

Monday, June 22, 2015

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

✍   **Answer ALL questions.**

1.   **Essay Questions:**

1A.   Explain the physiological effects and various methods of application of short wave diathermy.

(5+5 = 10 marks)

1B.   Discuss various types of peripheral nerve lesion and explain S-D curve.

(4+6 = 10 marks)

2.   **Short Notes:**

2A.   Explain the production of ultrasonic waves.

2B.   Classify laser and explain the principles of application for the same.

2C.   Explain the procedure for assessment of UVR irradiation dose for psoriasis.

2D.   Explain the procedure for stimulation of foot muscle.

2E.   Explain the physiological effects of TENS.

2F.   Explain various methods of application of cryotherapy.

2G.   Explain the dangers and contraindications of microwave diathermy.

2H.   What is ionotophoresis? Explain therapeutic effects and uses of any four ions.

(5 marks × 8 = 40 marks)

3.   **Brief Answers:**

3A.   Define cosine law.

3B.   Define action potential.

3C.   What is Lenz's law?

3D.   Mention types of pain carrying fibers along with its diameter.

3E.   Mention any four types of impulses for modified DC current.

3F.   Mention any two properties of high frequency current.

3G.   Classify UVR based on their wavelength.

3H.   What is cavitation?

3I.   Mention any two therapeutic use of paraffin wax bath.

3J.   Mention any four contraindications for interferential therapy.

(2 marks × 10 = 20 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: BIOMECHANICS AND EXERCISE THERAPY – II
(2010 REGULATION)

Wednesday, June 24, 2015

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

✍ Answer ALL questions.

SECTION A: BIOMECHANICS

✍ Essay Questions:

1. Explain the angulations of hip joint. Add a note on methods to reduce joint reaction forces during Gait.

(5+5 = 10 marks)

2. Short Notes:

2A. Explain Extension mechanism of Knee joint.

2B. Explain role of rotator cuff muscles during shoulder abduction.

2C. Structure and function of Intervertebral Disc.

2D. Explain the determinants of Gait.

(5 marks × 4 = 20 marks)

3. Brief Answers:

3A. Write the function of dorsolumbar fascia.

3B. Write the function of Lumbrical muscle.

3C. Why biceps brachii is most efficient at around 90 degree of elbow flexion.

3D. What is Extensor Lurch?

3E. Mention the postural deviations of the Trunk.

(2 marks × 5 = 10 marks)

SECTION B: EXERCISE THERAPY II

✍ Essay Questions:

4. What is stretching? What are the types of stretching? Explain the effects of stretching.

(2+4+4 = 10 marks)

5. Short Notes:

5A. Write the principles of strengthening.

5B. Write the merits and demerits of manual muscle testing.

5C. Explain different PNF techniques to increase joint range of motion.

5D. Explain different types of crutch gait.

(5 marks × 4 = 20 marks)

6. Brief Answers:

6A. Write the effects of Lumbar traction.

6B. What is Concave convex rule?

6C. Enumerate the contraindications for postural drainage.

6D. Write the grades of mobilization.

6E. How do you take measurement for elbow crutch?

(2 marks × 5 = 10 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2015

SUBJECT: PSYCHOLOGY
(2010 REGULATION)

Friday, June 26, 2015

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

1.   **Choose the single best answer:**

1A.   which among the following is not a projective test:
   i)   Rorschach Inkblot test
   ii)   Sentence completion test
   iii)   Bender gestalt test
   iv)   Thematic apperception test

1B.   In some countries including ours, it is normal to defecate or urinate in public. This makes it
      clear that judgments of the normality of behaviour are
   i)   Related to statistics
   ii)   Subjective discomfort
   iii)   Culturally relative
   iv)   Discomfort to others

1C.   The person responsible for the development and design of the first useful individual test of
      intelligence is
   i)   Wechsler
   ii)   Binet
   iii)   Terman
   iv)   Freud

1D.   Following medical treatment after a road traffic accident a person was referred to
      physiotherapy. Even though he wanted to regain the mobility of his limbs he does not want to
      undergo painful physiotherapy. The conflict this person experiences is
   i)   Approach- approach conflict
   ii)   Approach- avoidance conflict
   iii)   Avoidance- avoidance conflict
   iv)   Double approach- avoidance conflict

1E.   Excessive checking and washing behaviour is seen in which disorder?
   i)   Panic disorder
   ii)   Agorophobia
   iii)   Generalised anxiety disorder
   iv)   Obsessive compulsive disorder

(1 mark × 5 = 5 marks)

2. **Write definitions of any FIVE of the following:**

2A. Figure ground relationship

2B. Operant conditioning

2C. id ego and Superego

2D. Emotion

2E. Trait theory of personality

2F. Intelligence

2G. Shape constancy

(3 marks × 5 = 15 marks)

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

3A. Introspection

3B. Case history

3C. Cannon Bard theory of emotion

3D. Heredity Vs environment influence in Intelligence

3E. Factors influencing attention

3F. Self report measures of personality

3G. Types of coping

3H. Crisis reaction

3I. Branches of psychology

(5 marks × 6 = 30 marks)

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

4A. Explain biological and psychological theories of motivation and elucidate interactionism in motivation

4B. Write an essay on application of learning principles

4C. Explain different models of psychotherapy.

(15 marks × 2 = 30 marks)