MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. C.V.T./ B.Sc. R.R.T. & D.T/ FOURTH SEMESTER B. PFT DEGREE EXAMINATION – JUNE 2017

SUBJECT: PATHOLOGY

(2010 REGULATION/2011 & 2015 SCHEME/2010 & 2015 SCHEME/2011 & 2015 SCHEME/BDT 201/2015 & 2014 SCHEME)

Friday, June 02, 2017

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL questions.**

✍ **Illustrate your answers with diagrams wherever necessary.**

1. Define necrosis. Mention and explain four morphologic types of necrosis. Give one example for each.

(2+4+2 = 8 marks)

2. Define neoplasia. List five differences between benign and malignant tumors.

(2+5 = 7 marks)

3. **Write short notes on:**

3A. Etiology of atherosclerosis

3B. Peripheral blood findings of iron deficiency anaemia

3C. Clinical features and microscopy of lepromatous leprosy

3D. Complications of diabetes mellitus

3E. Definition, etiology and clinical features of chronic bronchitis

(5 marks × 5 = 25 marks)

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SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/B.Sc. RRT & DT/
FOURTH SEMESTER B. PFT DEGREE EXAMINATION – JUNE 2017

SUBJECT: MICROBIOLOGY
(COMMON FOR 2010 REGULATION/2011 & 2015 SCHEME/2010 & 2015 SCHEME/2011 & 2015 SCHEME/BDT 202/2015 & 2014 SCHEME)

Monday, June 05, 2017

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

✍ **Draw Diagrams wherever appropriate.**

1. Define and classify hypersensitivity reactions. Discuss the mechanism of IgE mediated hypersensitivity reaction.

    (1+2+5 = 8 marks)

2. Discuss the pathogenesis and laboratory diagnosis of cholera.

    (3+4 = 7 marks)

3. **Write short notes on:**

3A. Bacterial growth curve

3B. Prophylaxis of poliomyelitis

3C. Autoclave

3D. Laboratory diagnosis of HIV infection

3E. Gram negative bacterial cell wall

    (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.T./B.Sc. R.R.T. & D.T.
DEGREE EXAMINATION – JUNE 2017
SUBJECT: PHARMACOLOGY
(COMMON FOR 2010 REGULATION/2011 & 2015 SCHEME/2012 SCHEME/2011 & 2015 SCHEME/2015 SCHEME /BDT 203)

Wednesday, June 07, 2017

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

✍   **Answer the following questions:**

1.   Explain the following terms with an example:
1A.   Idiosyncrasy
1B.   Synergism
1C.   Chemoprophylaxis
1D.   Local anesthetics

(2 marks × 4 = 8 marks)

2.   Mention one advantage and one disadvantage of the following routes of drug administration:
2A.   Transdermal
2B.   Subcutaneous

(1 mark × 2 = 2 marks)

3A.   Explain the mechanism of action of chloroquine.
3B.   List two classes of antiasthmatic drugs with an example for each.
3C.   List two cholinergic receptors and mention two adverse effects of atropine.

(2+2+2 = 6 marks)

4.   Mention two examples and two uses of the following group of drugs:
4A.   Proton pump inhibitors
4B.   NSAIDs
4C.   ACE inhibitors

(2 marks × 3 = 6 marks)

5.   List two drugs used in the following conditions:
5A.   HIV infection
5B.   Vomiting
5C.   Parkinsonism
5D.   Tuberculosis
5E.   Epilepsy

(1 mark × 5 = 5 marks)

6A. List two anticoagulants and explain the mechanism of action of any one.

6B. List two beta blockers and mention their two therapeutic uses and two adverse effects.

6C. Define first order kinetics.

6D. List two aminoglycosides and mention their four common properties.

6E. List two glucocorticoids and mention their two uses and two adverse effects.

(3+3+1+3+3 = 13 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2017

SUBJECT: PSYCHOLOGY
(2010 REGULATION)

Friday, June 09, 2017

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

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

1A.   Which of the following is a projective test?
     i)   WAIS   ii)   DAT   iii)   TAT   iv)   MMPI

1B.   Which approach to personality emphasizes the innate goodness of people and their desire to grow?
     i)   Humanistic   ii)   Psychodynamic
     iii)   Learning   iv)   Biological and evolutionary

1C.   The curve of forgetting was first drawn by:
     i)   Thorndike   ii)   Ebbinghaus   iii)   Skinner   iv)   Pavlov

1D.   Salivation elicited by the sound of the bell in Pavlov's experiment is:
     i)   Conditioned response   ii)   Unconditioned response
     iii)   Conditioned stimulus   iv)   Unconditioned stimulus

1E.   Which one of the following is a supportive intervention?
     i)   Chaining   ii)   Desensitization   iii)   Aversion   iv)   Ventilation
                                                          (1 mark × 5 = 5 marks)

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

2A.   Psychology

2B.   Observation

2C.   Learning

2D.   Attention

2E.   Projective tests

2F.   illusion

2G.   Motivation
                                                          (3 marks × 5 = 15 marks)

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

3A.   Phobia

3B.   Cognitive model of mental disorder

3C.   Scope of clinical psychology

3D.   Any two theories of emotion

3E. Ellis's approach of cognitive therapy

3F. Crisis reaction

3G. Biological theories of motivation

3H. Sources of stress

3I. Application of learning principles

(5 marks × 6 = 30 marks)

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

4A. Define personality and discus psychoanalytic theory of personality in detail.

4B. Discuss any three methods of psychology.

4C. Discus the various perspectives of concept of normality and abnormality.

(15 marks × 2 = 30 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2017

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

Monday, June 12, 2017

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

✍ **Answer ALL questions.**

SECTION A: BIOMECHANICS

✍ **Essay question:**

1. Discuss the ligaments of the vertebral column. Discuss the lumbopelvic rhythm.

(5+5 = 10 marks)

2. **Write short notes on:**

2A. Discuss the ligaments of the knee.
2B. Discuss the muscle synergies in relation to maintaining postural stability.
2C. Discuss the scapulohumeral rhythm.
2D. Discuss the stance phase and swing phase of the gait cycle.

(5 marks × 4 = 20 marks)

3. **Write brief answers on:**

3A. What is active insufficiency of a muscle?
3B. List the rotator cuff muscles.
3C. What is lock/screw home mechanism?
3D. What is step length and stride length?
3E. What is Insall-Salvati index?

(2 marks × 5 = 10 marks)

SECTION B: EXERCISE THERAPY

✍ **Essay question:**

4. What is incoordination? What are the principles of re-education? Discuss Frenkel's exercise.

(2+3+5 = 10 marks)

5. **Write short notes on:**

5A. Discuss the contraindications and precautions for strength training.
5B. Discuss Rhythmic Stabilization.

5C. List the indication and contraindications in joint mobilization.

5D. Discuss the adjuncts used in stretching for local relaxation.

(5 marks × 4 = 20 marks)

6. **Write brief answers on:**

6A. Write the grades of mobilization.

6B. What is the concave-convex rule?

6C. What is the method of measurement of elbow crutch?

6D. What is the D2 flexion pattern of the upper limb?

6E. Define trick movements and give an example.

(2 marks × 5 = 10 marks)

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SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2017

SUBJECT: ELECTROTHERAPY
(2010 REGULATION)

Wednesday, June 14, 2017

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

✍ **Answer ALL the questions.**

1.   **Essays questions:**

1A.   Explain the application of SWD for Sinusitis. Add a note on therapeutic effects of SWD.

(5+5 = 10 marks)

1B.   Define Iontophoresis. Explain the physiological effects of direct currents.

(2+8 = 10 marks)

2.   **Write short notes on:**

2A.   Photochemotherapy

2B.   Ring main circuit

2C.   Production of ultrasound therapy

2D.   Explain the different types of therapeutic low frequency currents with diagram

2E.   Faradic foot bath

2F.   Explain the physiological effects of heat

2G.   Explain the physical properties of LASER

2H.   Compare TENS and IFT

(5 marks × 8 = 40 marks)

3.   **Write brief answers on:**

3A.   What is SD Curve?

3B.   What is resting membrane potential?

3C.   Difference between dry and moist heat

3D.   What is extracorporeal shock wave therapy?

3E.   Define inductive reactance.

3F.   Define Cosine law.

3G.   Define biofeedback.

3H.   Mention any four filters used in Ultra Voilet Radiation.

3I.   What is low TENS?

3J.   Mention any four contra indications for infra-red radiation

(2 marks × 10 = 20 marks)

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