

BPT

Reg. No.

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 2016**

SUBJECT: PATHOLOGY

(2010 REGULATION/2011 BATCH/2010 SCHEME/2011 SCHEME/BDT 201/CBS-PFT 204)

Wednesday, June 15, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

- ✍ **Answer ALL questions.**
✍ **Illustrate your answers with diagrams wherever necessary.**

1. Define osteomyelitis. Mention the etiology and discuss the morphology of bone osteomyelitis.

(1+2+5 = 8 marks)

2. Define neoplasia. Give four differences between a benign and a malignant tumour.

(3+4 = 7 marks)

3. **Write short notes on:**

3A. Granuloma

3B. Metaplasia

3C. Types of embolism

3D. Morphology of lepromatous leprosy

3E. Etiology of gastric ulcer

(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 2016**

SUBJECT: MICROBIOLOGY

(COMMON FOR 2010 REGULATION/2011 BATCH/2010 SCHEME/2011 SCHEME/BDT 202/PFT 206)

Friday, June 17, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

☞ Draw Diagrams wherever appropriate.

1. Classify immunity. Discuss the mechanism of innate immunity.
(2+5 = 7 marks)

2. Discuss the investigation of nosocomial infections. State the importance of MRSA in nosocomial infections.
(6+2 = 8 marks)

3. **Write short notes on:**
 - 3A. Laboratory diagnosis of tuberculosis
 - 3B. Pathogenesis of tetanus
 - 3C. Laboratory diagnosis of streptococcal skin infection
 - 3D. Laboratory diagnosis of urinary tract infections
 - 3E. Constituents and significance of cell mediated immunity(5 marks × 5 = 25 marks)



MANIPAL UNIVERSITY**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 2016****SUBJECT: PHARMACOLOGY**

(COMMON FOR 2010 REGULATION/2011 BATCH/2012 SCHEME/2011 SCHEME/BDT 203)

Monday, June 20, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer the following questions:

- 1A. Mention two classes of anti-anginal drugs and explain the mechanism of action of any one of them.
- 1B. Enumerate two aminoglycosides and list their four therapeutic uses.
- 1C. List two first line anti-tubercular drugs and explain the mechanism of action of any one of them.
- 1D. List three advantages each of oral and intravenous routes of drug administration.

(3 marks × 4 = 12 marks)

2. Mention two examples of the following groups of drugs and mention two uses of any one of them.

- 2A. β -lactam antibiotics
- 2B. Selective β_2 - agonists
- 2C. Proton pump inhibitors
- 2D. Angiotensin converting enzyme inhibitors
- 2E. Statins

(2 marks × 5 = 10 marks)

- 3A. Explain the pharmacological basis for combining levodopa with carbidopa.
- 3B. List two second generation antihistaminics and mention their two advantages over first generation antihistaminics.
- 3C. Enumerate two oral iron preparations and list their two adverse effects.
- 3D. Mention one each of oral and parenteral anticoagulants and list two therapeutic uses of any one of them.
- 3E. List four differences between aspirin and paracetamol.

(2 marks × 5 = 10 marks)

4. List two drugs used in the following conditions:

- 4A. Malaria
- 4B. HIV
- 4C. Cancer
- 4D. Type II diabetes mellitus
- 4E. Epilepsy
- 4F. Rheumatoid arthritis
- 4G. Congestive heart failure
- 4H. Constipation

(1 mark × 8 = 8 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2016****SUBJECT: PSYCHOLOGY
(2010 REGULATION)**

Wednesday, June 22, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Choose the single best answer:

1A. Which of the following schedule exists when a reward is delivered after ten responses?

- i) Fixed interval schedule
- ii) Variable interval schedule
- iii) Fixed ratio schedule
- iv) Variable ratio schedule

1B. Which of the following is entirely unconscious according to Freud?

- i) Id ii) Ego iii) Super Ego iv) The archetype

1C. Social learning theory was developed by

- i) Tolman ii) Bandura iii) Skinner iv) Erikson

1D. Rational Emotive Behaviour Therapy was given by _____.

- i) Ellis ii) Beck iii) Skinner iv) Adler

1E. IQ is equal to

- i) $MA/CA \times 99$ ii) $CA/MA \times 90$ iii) $MA/CA \times 100$ iv) $CA/MA \times 10$

(1 mark \times 5 = 5 marks)**2. Write definitions on any FIVE of the following:**

2A. Personality trait

2B. Attention

2C. Observational learning

2D. Motivation

2E. Illusion

2F. Mental set

2G. Introspection

(3 marks \times 5 = 15 marks)**3. Write short notes on any SIX of the following:**

3A. Principles of perceptual organization

3B. Assessment of cognitive functions

3C. Client centered therapy

- 3D. Explain the concept of normality and abnormality
- 3E. Branches of psychology
- 3F. Crisis management
- 3G. Difference between classical and operant conditioning
- 3H. Cannon -Bard theory of emotion
- 3I. Personality assessment

(5 marks × 6 = 30 marks)

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

- 4A. Define personality and explain learning approaches to personality
- 4B. Explain supportive therapy and its application
- 4C. Discuss the following behaviour therapy techniques in clinical conditions of physiotherapy:
 - i) shaping
 - ii) token economy
 - iii) contingency management

(15 marks × 2 = 30 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2016****SUBJECT: BIOMECHANICS AND EXERCISE THERAPY – II
(2010 REGULATION)**

Friday, June 24, 2016

Time: 10:00-13:00 hrs.

Max. Marks: 80

✍ **Answer ALL questions.**

SECTION A: BIOMECHANICS

✍ **Essay question:**

1. Explain in detail about the static and dynamic stabilization of the shoulder joint. (10 marks)

2. **Short notes:**

2A. Discuss the structure and function of the intervertebral disc.

2B. Discuss the ligaments of the knee.

2C. Discuss the unilateral stance mechanism in the hip joint.

2D. Discuss the arches of the foot.

(5 marks × 4 = 20 marks)

3. **Brief answers:**

3A. What is sway-back posture?

3B. What is the capsular pattern of the shoulder?

3C. What is passive insufficiency of a muscle?

3D. What is femoral anteversion?

3E. What is Trendelenburg gait?

(2 marks × 5 = 10 marks)

SECTION B: EXERCISE THERAPY

✍ **Essay question:**

4. Describe the techniques of Proprioceptive Neuromuscular Facilitation. Discuss any five principles of Proprioceptive Neuromuscular Facilitation.

(5+5 = 10 marks)

5. **Short notes:**

- 5A. Mention the abnormal postures and describe any two in detail.
- 5B. Name any three walking aids and write their method of measurement.
- 5C. What are the indications and contraindications for spinal traction?
- 5D. Discuss open-chain and closed-chain exercises with examples.

(5 marks × 4 = 20 marks)

6. **Brief answers:**

- 6A. What are the grades of Manual Muscle Testing?
- 6B. Define treatment plane.
- 6C. What is 1RM (Repetitive Maximum)?
- 6D. List the contraindications for joint mobilization.
- 6E. What is D1 extension pattern of the upper limb?

(2 marks × 5 = 10 marks)



MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: ELECTROTHERAPY
(2010 REGULATION)

Monday, June 27, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

Answer ALL the questions.

1. Essays questions:

1A. Define interferential currents. Briefly explain the production of interferential current. Add a note on vector mode.

(2+4+4 = 10 marks)

1B. Explain the various methods of application of ultra sound therapy. Add a note on dangers and precautions of ultra sound therapy.

(6+2+2 = 10 marks)

2. Short notes:

2A. Explain the methods of application of SWD

2B. PUVA therapy

2C. Pain gate theory

2D. Condensor Resistance (CR) timing circuit

2E. Therapeutic effects of Infra-Red Radiation

2F. Types of LASER. Add a note on dangers of LASER.

2G. Explain physiological effects of galvanic currents?

2H. Contrast bath

(5 marks × 8 = 40 marks)

3. Brief answers:

3A. Any FOUR differences between Kromayer Lamp and Air cooled mercury lamp.

3B. Define one Farad.

3C. What is Lewis Hunting reaction?

3D. What is Combination therapy?

3E. Define Electric Shock.

3F. Define Van't-Hoff's law

3G. Write any TWO differences between SWD and Pulsed SWD.

3H. What is a coupling media?

3I. Define iontophoresis and mention any TWO negative ions?

3J. What is Didynamic Current?

(2 marks × 10 = 20 marks)

