

MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. C.V.T. AND FOURTH
SEMESTER BACHELOR OF PERFUSION TECHNOLOGY
DEGREE EXAMINATION – DECEMBER 2014****SUBJECT: PATHOLOGY/ PATHOLOGY II (PFT 204)
(2010 BATCH (NR)/2011 BATCH/2010 SCHEME/2011 SCHEME/GS)**

Wednesday, December 17, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

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

1. Classify anemia. List the clinical features of iron deficiency anemia. Discuss the laboratory diagnosis of the same.

(2+2+4 = 8 marks)

2. Define granulation tissue. Explain the process of healing by primary intention. List the factors affecting wound healing.

(1+3+3 = 7 marks)

3. **Write short notes on:**

3A. Rheumatoid arthritis

3B. Etiology and types of pneumonia

3C. Types of oedema

3D. Laboratory diagnosis of cancer

3E. Mode of infection and clinical features of hepatitis B

(5 marks × 5 = 25 marks)



MANIPAL UNIVERSITY**SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/FOURTH SEMESTER B. PFT
DEGREE EXAMINATION – DECEMBER 2014****SUBJECT: MICROBIOLOGY/MICROBIOLOGY II (PFT 206)
(2010 BATCH/2011 BATCH/2010 SCHEME/2011 SCHEME/GS)**

Thursday, December 18, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer all questions. Draw diagrams wherever appropriate.

1. Define sterilization and disinfection. Explain dry heat method of sterilization.
(1+1+6 = 8 marks)
2. Define and classify immunity. Describe the mechanisms of innate immunity.
(1+2+4 = 7 marks)
3. **Write short notes on:**
 - 3A. Laboratory diagnosis of pulmonary tuberculosis
 - 3B. Bacterial cell wall
 - 3C. Laboratory diagnosis of Staphylococcus aureus
 - 3D. Prophylaxis of poliomyelitis
 - 3E. Robert Koch(5 marks × 5 = 25 marks)



MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2014
SUBJECT: ELECTROTHERAPY
(2010 BATCH - NR)

Saturday, December 20, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

☞ **Answer ALL questions.**

1. Essay Questions:

1A. What are the indications and contraindications for short wave diathermy? Explain the electrode placement in shortwave diathermy with merits of each method.

(4+6 = 10 marks)

1B. What are the currents used for therapeutic purpose? Explain surging of faradic current. What are the indications for faradic type current?

(2+3+5 = 10 marks)

2. Short Notes:

2A. Explain the physiological and therapeutic effects of Cryotherapy.

2B. Explain the types and production of Infra-Red Radiation.

2C. Explain the dose calculation of UVR.

2D. Explain the production of Ultrasound. What are the factors affecting the depth of penetration of ultrasound?

2E. Explain the production of LASER.

2F. Explain the types of TENS with its therapeutic benefits.

2G. Explain construction and working of a Thermionic valve.

2H. What is earth shock? Explain the causes for earth shock.

(5 marks × 8 = 40 marks)

3. Brief Answers:

3A. What is cavitation, what are the types?

3B. Mention the functions of Fuse.

3C. What is reverse piezoelectric effect?

3D. Mention the effects of cathodal galvanism.

3E. Define base and spectrum.

3F. Write advantage of carbon rubber electrode over metal electrode.

3G. Define inverse square law.

3H. What is inductive reactance?

3I. What are the properties of Magnet?

3J. Name any two ions with its charges used in iontophoresis for pain relief.

(2 marks × 10 = 20 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T./B.Sc. C.V.T./FOURTH SEMESTER BACHELOR OF
CLINICAL OPTOMETRY/B.PFT DEGREE EXAMINATION – DECEMBER 2014****SUBJECT: PHARMACOLOGY/PHARMACOLOGY II (PFT 202)
(2010 BATCH/2011 BATCH/2011 SCHEME/GS 2011 & 2012 BATCH/GS)**

Friday, December 19, 2014

Time: 10:00-11:30 Hrs.

Max. Marks: 40

Answer the following questions:**1. Define the following terms:**

- 1A. Therapeutic index
- 1B. Potency
- 1C. Biotransformation
- 1D. Zero order kinetics

(1 mark × 4 = 4 marks)

2. List two advantages and two disadvantages of the following routes of drug administration:

- 2A. Oral
- 2B. Intramuscular

(2 marks × 2 = 4 marks)

3. List two drugs belonging to the following groups and list two therapeutic uses of any one of them:

- 3A. Macrolides
- 3B. Selective COX-2 inhibitors
- 3C. Adrenergic agonists
- 3D. Opioids

(2 marks × 4 = 8 marks)

4. Mention two drugs each useful in the following conditions and mention two specific adverse effects of any one of them:

- 4A. Tuberculosis
- 4B. Amoebiasis
- 4C. Malaria
- 4D. Epilepsy

(2 marks × 4 = 8 marks)

- 5A. Enumerate two glucocorticoids and mention their two uses and two specific adverse effects.
5B. Write a short note on drug nomenclature.

(3+3 = 6 marks)

- 6A. Enumerate two anticancer drugs and mention their two general toxicities.
6B. Mention two beta lactam antibiotics and explain the mechanism of action of any one of them.

(2+3 = 5 marks)

7. Mention two examples for each of the following groups of drugs:

- 7A. Anticholinergics
7B. Calcium channel blockers
7C. Anthelmintics
7D. Proton pump inhibitors
7E. Aminoglycosides

(1 mark × 5 = 5 marks)



MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2014
SUBJECT: BIOMECHANICS AND EXERCISE THERAPY – II
(NEW REGULATION – 2010 BATCH)

Monday, December 22, 2014

Time: 10:00-13:00 hrs.

Max. Marks: 80

✍ **Answer ALL questions.**

SECTION A: BIOMECHANICS

✍ **Essay questions:**

1. Define posture. Explain in detail about common postural deviations.

(2+8 = 10 marks)

2. **Short Notes:**

2A. Coupling motions of spine at cervical and lumbar region

2B. Scapulohumeral rhythm

2C. Active and passive insufficiency

2D. Temporal and spatial variation of gait

(5 marks × 4 = 20 marks)

3. **Brief answers:**

3A. Define Biomechanics.

3B. What is Patella alta and patella baja?

3C. What is Y –ligament?

3D. What is Windglass effect?

3E. What is anterior Pelvic tilt?

(2 marks × 5 = 10 marks)

SECTION B: EXERCISE THERAPY II

✍ **Essay questions:**

4. Explain the principles of Manual Muscle Testing (MMT). Mention the indications of MMT.

(7+3 = 10 marks)

5. **Short notes:**

5A. Define flexibility. Mention the types of flexibility. Add a note of techniques to improve flexibility.

- 5B. Explain the grades of joint mobilization. Add a note on mobilization techniques to improve knee flexion range.
- 5C. Explain the principles of Proprioceptive neuromuscular facilitation (PNF).
- 5D. Explain in detail about Progressive resisted exercises.

(5 marks \times 4 = 20 marks)

6. **Brief answers:**

- 6A. What is Muscle contracture?
- 6B. What is Isokinetic exercise?
- 6C. What is Quick stretching?
- 6D. What is Crutch palsy?
- 6E. Mention the indications for traction.

(2 marks \times 5 = 10 marks)



MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2014

SUBJECT: PSYCHOLOGY
(2010 BATCH - NR)

Tuesday, December 23, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Choose the single best answer:

1A. First test of intelligence was devised by

- | | |
|---------------------------|------------|
| i) Alfred Binet and Simon | ii) Bhatia |
| iii) Wechsler | iv) Kamat |

1B. Which one of the following is behavioural intervention?

- | | |
|----------------|----------------------|
| i) Ventilation | ii) Problem solving |
| iii) Shaping | iv) Free association |

1C. Cognitive approach belongs to

- | | |
|------------|------------|
| i) Ellis | ii) Jung |
| iii) Freud | iv) Maslow |

1D. Although lines are straight and parallel, they appear to be bowed in

- | | |
|------------------------------|--------------------------|
| i) Illusion of curvature | ii) Muiler-Lyer illusion |
| iii) Illusion of perspective | iv) Illusion of size |

1E. Life and death instincts were given by

- | | |
|------------|-----------|
| i) Maslow | ii) Freud |
| iii) Adler | iv) Jung |

(1 mark × 5 = 5 marks)

2. Write definitions of any FIVE of the following:

2A. Motivation

2B. Perception

2C. Projective technique

2D. Clinical psychology

2E. Concept of normality

2F. Intelligence

2G. Stress

(3 marks × 5 = 15 marks)

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

3A. Introspection method

3B. Classical conditioning

- 3C. Learning approach to personality
- 3D. Any one theory of intelligence
- 3E. Scope of clinical psychology
- 3F. Nature and goals of counselling
- 3G. Scope of psychological assessment
- 3H. Crisis reaction
- 3I. Assessment of cognitive functions

(5 marks × 6 = 30 marks)

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

- 4A. Discuss various types of neurotic disorders and explain the clinical features of any two disorders in detail.
- 4B. What is behavior therapy? Discuss any four behavior therapy techniques.
- 4C. Define learning and explain the laws of learning.

(15 marks × 2 = 30 marks)

