

MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. R.R.T. & D.T
DEGREE EXAMINATION – DECEMBER 2019

SUBJECT: PATHOLOGY

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

Monday, December 02, 2019

Time: 10:00 - 11:30 Hrs.

Max. Marks: 40

✍ Answer ALL questions.

✍ Illustrate your answers with diagrams wherever necessary.

1. Define osteomyelitis. Discuss the etiopathogenesis of pyogenic osteomyelitis. Mention complications of osteomyelitis.

(1+3+4 = 8 marks)

2. What are the types of shock? Give examples. Discuss the etiopathogenesis of shock due to bacterial infection.

(3+4 = 7 marks)

3. Write short notes on:

3A. Briefly explain routes of metastasis with examples

3B. Factors affecting wound healing

3C. Ghon's complex

3D. Peripheral blood findings of iron deficiency anemia

3E. Opportunistic infections in AIDS

(5 marks × 5 = 25 marks)



Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./B.Sc. R.R.T. & D.T. /FOURTH SEMESTER
BACHELOR OF CLINICAL OPTOMETRY DEGREE EXAMINATION – DECEMBER 2019

SUBJECT: PHARMACOLOGY

(COMMON FOR 2010 REGULATION/BOT 207:2015 & 2011 SCHEME/2015 SCHEME/BDT 203/BOP 210-2012 SCHEME)

Friday, December 06, 2019

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer the following questions:

1. Explain the following terms with an example:

- 1A. Synergism
- 1B. Superinfection
- 1C. Iatrogenic disease
- 1D. Teratogenicity

(2 marks × 4 = 8 marks)

2. Mention one advantage and one disadvantage of the following routes of drug administration:

- 2A. Intravenous
- 2B. Sublingual

(1 mark × 2 = 2 marks)

- 3A. Explain the mechanism of action of acyclovir.
- 3B. Explain the action of adrenaline on the heart.

(2+3 = 5 marks)

4. Mention two therapeutic uses of the following groups of drugs:

- 4A. Anticholinesterases
- 4B. Alpha blockers
- 4C. Opioids
- 4D. Loop diuretics
- 4E. H₁ antihistaminics

(1 mark × 5 = 5 marks)

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

- 5A. Antiamoebics
- 5B. Antileprotics
- 5C. General anaesthetics
- 5D. Bronchodilators

(1 mark × 4 = 4 marks)

6A. Classify skeletal muscle relaxants with an example for each class.

6B. Explain the mechanism of action of penicillins.

(3+2 = 5 marks)

7A. List two anticoagulants and explain the mechanism of action of any one of them.

7B. Enumerate two drugs each used in the treatment of epilepsy and diabetes mellitus.

(3+2 = 5 marks)

8. **Mention two drugs belonging to the following groups and mention two therapeutic uses of any one of them:**

8A. Macrolides

8B. Glucocorticoids

8C. Selective COX-2 inhibitors

(2 marks × 3 = 6 marks)



Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND YEAR B.P.T. DEGREE EXAMINATION – DECEMBER 2019

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

Saturday, December 07, 2019

Time: 10:00-13:00 hrs.

Max. Marks: 80

✍ Answer ALL questions.

SECTION A: BIOMECHANICS

✍ Essay questions:

1. Describe in detail regarding Scapulo-humeral rhythm. Add a note on force couples of shoulder complex.

(6+4 = 10 marks)

2. Write short notes on:

2A. Describe in detail the kinematics of the rib cage.

2B. Describe the various gait patterns associated with quadriceps weakness.

2C. Describe sway back posture.

2D. Describe the kinetics of lumbar spine.

(5 marks × 4 = 20 marks)

3. Write brief answers on:

3A. Define Coxa vara and Coxa valga

3B. Define Q - Angle

3C. Mention Arches of foot

3D. List the determinants of gait

3E. Enumerate the types of power grips.

(2 marks × 5 = 10 marks)

SECTION B: EXERCISE THERAPY II

✍ Essay questions:

4. Define postural drainage and discuss the indication and contraindications of the same.

(4+3+3 = 10 marks)

5 **Write short notes on:**

- 5A. Discuss MRC Grading in manual muscle testing.
- 5B. Write the principles of stretching
- 5C. Explain S A I D Principle.
- 5D. Write the Principles of proprioceptive neuromuscular facilitation.

(5 marks × 4 = 20 marks)

6. **Write brief answers on:**

- 6A. List the contraindications of traction.
- 6B. Mention any two causes of in co-ordination.
- 6C. Mention the types of breathing exercises.
- 6D. Mention any four types of trick movements.
- 6E. Mention any four causes for limitation of joint range of motion.

(2 marks × 5 = 10 marks)

