

MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: PATHOLOGY
(NEW REGULATION)**

Monday, June 11, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 80

✍ Draw labelled diagrams wherever appropriate.

1. Discuss the definition, aetiology, types and clinical features of osteomyelitis.

(1+2+3+2 = 8 marks)

2. Define thrombosis. Describe the factors influencing thrombosis.

(1+6 = 7 marks)

3. Write short notes on:

3A. Factors influencing wound healing.

3B. Predisposing factors and clinical effects of atherosclerosis.

3C. Aetiology and basic investigations of iron deficiency anemia.

3D. Rheumatoid arthritis.

3E. Routes of metastasis with examples.

(5×5 = 25 marks)



MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012

**SUBJECT: PATHOLOGY AND MICROBIOLOGY
(OLD REGULATION AND 2008 & 2009 BATCH)**

Monday, June 11, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

- ✍ **Answer section A and section B in TWO separate answer books.**
- ✍ **Draw labelled diagrams wherever appropriate.**

SECTION 'A': PATHOLOGY: 40 MARKS

1. Discuss the definition, aetiology, types and clinical features of osteomyelitis. (1+2+3+2 = 8 marks)
2. Define thrombosis. Describe the factors influencing thrombosis. (1+6 = 7 marks)
3. **Write short notes on:**
 - 3A. Factors influencing wound healing.
 - 3B. Predisposing factors and clinical effects of atherosclerosis.
 - 3C. Aetiology and basic investigations of iron deficiency anemia.
 - 3D. Rheumatoid arthritis.
 - 3E. Routes of metastasis with examples. (5×5 = 25 marks)

SECTION 'B': MICROBIOLOGY: 40 MARKS

4. Classify bacteria based on morphology. Discuss the structure of gram positive and gram negative bacterial cell wall with the help of a diagram. (2+6 = 8 marks)
5. Enumerate the agents causing diarrhea. Discuss the laboratory diagnosis of enteric fever. (2+5 = 7 marks)
6. **Write short notes on:**
 - 6A. Type I hypersensitivity reaction.
 - 6B. Chemical disinfectants.
 - 6C. Acquired immunity.
 - 6D. AIDS.
 - 6E. Laboratory diagnosis of UTI. (5×5 = 25 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: MICROBIOLOGY
(NEW REGULATION)**

Wednesday, June 13, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ Answer all questions. Draw diagrams wherever appropriate:

1. Classify sterilization methods. Describe the working principle of autoclave with the help of a diagram.

(3+5 = 8 marks)

2. Enumerate the agents causing sexually transmitted diseases. Discuss the laboratory diagnosis of syphilis.

(3+4 = 7 marks)

3. **Write short notes on:**

3A. Bacterial cell wall.

3B. Innate immunity.

3C. Type I hypersensitivity reactions.

3D. Laboratory diagnosis of pulmonary tuberculosis.

3E. Immunoprophylaxis of rabies.

(5×5 = 25 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T./B.O.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: PHARMACOLOGY
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Friday, June 15, 2012

Time: 10:00-11:30 Hrs.

Max. Marks: 40

1. Explain the following with examples:

- 1A. Bioavailability
- 1B. First pass metabolism
- 1C. Suppository
- 1D. Drug synergism
- 1E. Tachyphylaxis

(2×5 = 10 marks)

2A. Mention two anti-anginal drugs belonging to different groups. Mention two clinical indications for any one.

2B. Enlist four therapeutic uses of propranolol.

2C. Mention two differences between heparin and warfarin.

2D. Enumerate two drugs used in insomnia and give two adverse effects of any one.

2E. Enumerate two anti-tussives with two adverse effects for one.

(2×5 = 10 marks)

3A. Explain two uses of Methotrexate.

3B. Mention four Beta-lactam antibiotics.

3C. Enlist four therapeutic uses for tetracycline.

3D. Enumerate four adverse effects of dexamethasone.

(2×4 = 8 marks)

4A. Explain two pharmacological actions and mention two adverse effects of Phenytoin sodium.

4B. Mention two different groups of analgesic drugs with two examples for each.

4C. Write briefly on:

i) Rifampicin

ii) Insulin

(4+3+(2½+2½) = 12 marks)



MANIPAL UNIVERSITY

SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2012

SUBJECT: ELECTROTHERAPY (COMMON FOR BOTH OLD AND NEW REGULATION)

Monday, June 18, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer all questions:**

1. Essay questions:

1A. What are high frequency currents? Describe the various methods of applications of Short Wave Diathermy (SWD) by condenser field method.

(2+8 = 10 marks)

1B. Describe therapeutic and physiological effects of faradic currents.

(5+5 = 10 marks)

2. Short Notes:

2A. Discuss the mechanisms of pain relief by TENS.

2B. Discuss the indications and contraindications of LASER.

2C. Test dose calculation for UVR.

2D. Discuss the effects and uses of any **four** positive and negative ions in iontophoresis.

2E. Explain the generation and propagation of action potential.

2F. Compare Faradic-Galvanic test with Strength-Duration curve.

2G. Discuss extracorporeal shock wave therapy.

2H. Explain the physiological effects of ultrasound.

(5×8 = 40 marks)

3. Brief answers:

3A. Define electrophoresis.

3B. What is inverse square law?

3C. Mention any **two** examples of conductive and convective heating.

3D. Mention the electrode types in IFT.

3E. Write any **two** uses of biofeedback.

3F. Enumerate any **four** Local contraindications for electrical stimulation.

3G. Mention the various methods of application of cryotherapy.

3H. Define earth shock.

3I. Define Grotthus' law

3J. What is diode and triode?

(2×10 = 20 marks)



MANIPAL UNIVERSITY
SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2012

SUBJECT: EXERCISE THERAPY – II
(OLD REGULATION)

Wednesday, June 20, 2012

Time: 10:00-13:00 hrs.

Max. Marks: 80

✍ **Answer all questions.**

1. Essay:

- 1A. List out the indications, contraindications and precautions in joint mobilization. Describe the grades of joint mobilization and concave convex rule.
- 1B. Explain in detail the structures contributing to the static and dynamic stability of knee joint.

((5+5)+(5+5) = 20 marks)

2. Short notes:

- 2A. Arches of foot.
- 2B. Rhythmic stabilization.
- 2C. Unilateral stance mechanism in hip joint.
- 2D. Describe any two abnormal posture.
- 2E. Discuss the different types of crutches and their measurements.
- 2F. Scapulohumeral rhythm.
- 2G. Dangers and precautions of stretching.
- 2H. The Intervertebral disc.

(5×8 = 40 marks)

3. Brief answer:

- 3A. Enumerate the principles of Frenkel's exercises.
- 3B. DOMS
- 3C. What is Carrying angle?
- 3D. Enumerate abnormal breath sounds.
- 3E. Write the indications for postural drainage.
- 3F. Write any two adjuvant useful in stretching procedures.
- 3G. What is angle of inclination.
- 3H. What is the action of ACL ligament.
- 3I. Mention the demerits of MMT.
- 3J. Define cadence and double support.

(2×10 = 20 marks)



Reg. No.

MANIPAL UNIVERSITY

SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2012

**SUBJECT: BIOMECHANICS AND EXERCISE THERAPY – II
(NEW REGULATION)**

Wednesday, June 20, 2012

Time: 10:00-13:00 hrs.

Max. Marks: 80

✍ Answer ALL questions.

SECTION – A: BIOMECHANICS

✍ Essay Questions:

1. Discuss the normal biomechanics of the lumbar spine.

(10 marks)

2. Short Notes:

2A. Discuss the kinetics of running.

2B. Discuss the types of spinal postural abnormalities.

2C. Discuss the phases of the normal gait cycle.

2D. Explain the locking and unlocking mechanism of the knee joint.

(5×4 = 20 marks)

3. Brief Answers:

3A. What is carrying angle and its significance?

3B. What is the role of plantar arches?

3C. Define femoral anteversion.

3D. Mention the ligaments around the wrist joint.

3E. List the characteristics of lurching gait.

(2×5 = 10 marks)

SECTION – B: EXERCISE THERAPY II

✍ Essay Questions:

4. Mention the various methods of strength training. Write a short note on the advantages and disadvantages of eccentric exercise.

(6+4 = 10 marks)

5. Short Notes:

5A. Describe the techniques of PNF used to aid relaxation.

5B. Explain the contraindications to mobilization.

5C. Discuss the assessment and principles of management for in-coordination.

5D. Describe the indications and contraindications for spinal traction.

(5×4 = 20 marks)

6. Brief Answers:

6A. What are trick movements?

6B. What is the visco-elastic property of the connective tissue.

6C. Write the method of measurement for the axillary crutch.

6D. Define ballistic stretching.

6E. Mention four advantages of bridging.

(2×5 = 10 marks)



MANIPAL UNIVERSITY**SECOND YEAR B.P.T. DEGREE EXAMINATION – JUNE 2012****SUBJECT: PSYCHOLOGY
(COMMON FOR BOTH OLD & NEW REGULATIONS)**

Friday, June 22, 2012

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Choose the single best answer:

- 1A. Which one of the following is a projective test for assessing personality?
a) 16 PF Test b) MMPI c) Rorschach Ink Blot Test d) CPQ
- 1B. Which one of the following theories states that emotions arise from physiological reactions?
a) James-Lange theory b) Cannon-Bard theory
c) Cognitive theory d) Activation theory
- 1C. The branch of psychology which deals with the study of interpersonal influences and its effect on behaviour is _____.
a) Developmental Psychology b) Social Psychology
c) Physiological Psychology d) Experimental Psychology
- 1D. Repetitive, intrusive and irrational thoughts and behaviours are characteristics of _____.
a) Dissociative disorder b) Generalized anxiety disorder
c) Panic disorder d) Obsessive Compulsive disorder
- 1E. Client-centred therapy was proposed by _____.
a) Rogers b) Freud c) Beck d) Adler

(1×5 = 5 marks)

2. Write definitions on any FIVE of the following:

- 2A. Perception
2B. Introspection Method
2C. Psychology
2D. Classical conditioning
2E. Crisis
2F. Psychotherapy
2G. Stress

(3×5 = 15 marks)

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

- 3A. Any five applications of learning principles.
- 3B. Trait theories of personality.
- 3C. Heredity-environment controversy in intelligence.
- 3D. Methods of assessing personality.
- 3E. Define illusion and different types of illusion.
- 3F. Advantages and disadvantages of observational method.
- 3G. Management of crisis reaction.
- 3H. The nature and goals of counselling.
- 3I. Cognitive therapies.

(5×6 = 30 marks)

4. Write essay on any TWO of the following:

- 4A. Theories of intelligence.
- 4B. Operant conditioning.
- 4C. Any five neurotic disorders.

(15×2 = 30 marks)

