

ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, UTTAR PRADESH
BACHELOR OF PHYSIOTHERAPY (B.P.T)
FOURTH SEMESTER EXAMINATION - OCT 2025

Time: 3 Hours

Max Marks: 80 Marks

ELECTROTHERAPY-II
PAPER CODE : 2534110115

General instructions:

- All questions are compulsory.
- Explain with diagrams where required.
- The number on the right indicates full marks.
- Please write the correct paper code.

LONG ESSAY QUESTIONS

2 X 20 = 40 Marks

- Q.1** Describe the Long wave diathermy- Principles of application, Indications and Contraindications, Physiological effects.
- Q.2** Define IFT, Dosage of IFT, Physiological & Therapeutic effects of IFT, Electrode placement in IFT, Indications & Contraindications of IFT.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Define Ultrasound, Frequency, Piezoelectric effects, Production of US and Treatment Dosage parameters.
- Q.4** Explain Principles, Therapeutic uses, Indications & contraindication of Magnetotherapy.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Explain Russian Current.
- Q.6** Dosage Parameters of Microwave Diathermy.
- Q.7** Explain Circuit diagram & Production of SWD.
- Q.8** What is Electromagnetic Spectrum?
- Q.9** Production of LASER by various methods.
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EXERCISE THERAPY - II

PAPER CODE : 2534110114

General instructions:

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LONG ESSAY QUESTIONS

2 X 20 = 40 Marks

- Q.1** Definition of gait training, Different methods of Gait Training, Gait Training in Parallel Bars along with Types, Principles and training with crutches.
- Q.2** Describe about the Mobilization and Manipulation along with indications, limitations, contraindications and precautions for Mobilization and Manipulation technique to shoulder joints.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Explain about Isometric Exercise, Concentric and Eccentric Exercise, Isokinetic Exercise, Open-Chain and Closed-Chain Exercise.
- Q.4** What is PNF? Explain Technique in PNF – Rhythmic Initiation, Repeated Contractions, Reversal of Antagonists, Alternating Isometrics and Rhythmic Stabilization.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Explain about Physiological Changes with Aerobic Training.
- Q.6** What is the Special equipment's used in hydrotherapy?
- Q.7** Write about Balance training Exercises.
- Q.8** Explain about Good and bad posture.
- Q.9** Write about Techniques and Principles of PRT (Position release techniques).
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FIRST AID & EMERGENCY CARE

PAPER CODE : 2534110117

General instructions:

- All questions are compulsory.
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LONG ESSAY QUESTIONS

2 X 20 = 40 Marks

- Q.1** Explain about Community emergencies such as Fire, Explosion, Floods, Earth-Quakes and Community Resources such as Police, Ambulance services Voluntary agencies-local.
- Q.2** Describe in detail about Roller bandages, Tubular gauze bandages, square knots, hand and foot cover, Arm sling, Elevation sling and improvised slings.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Explain about BLS and ACLS guideline for adult and paediatrics.
- Q.4** Explain about First aid management of burn.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** What is Man-made disaster?
- Q.6** Mention about Transportation of injured patient.
- Q.7** Explain about Rules/General principles of First Aid.
- Q.8** How to manage Hanging?
- Q.9** What is Unconscious Casualty.
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PATHOLOGY

PAPER CODE : 2534110118

General instructions:

- All questions are compulsory.
- Explain with diagrams where required.
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- Please write the correct paper code.

LONG ESSAY QUESTIONS

2 X 20 = 40 Marks

- Q.1** Describe the different types of jaundice, their etiopathogenesis, and methods of diagnosis. How do these types impact the hepato-biliary system?
- Q.2** Explain the pathophysiology of anemia and bleeding disorders such as hemophilia. How do these conditions affect overall health and quality of life?

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Discuss the characteristics, differences, and spread of benign and malignant tumors. What are the common features of cancer pain syndrome?
- Q.4** Explain the pathophysiology, clinical features, and management of rheumatoid arthritis.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Write a short note on cell injury?
- Q.6** Discuss the key features of chronic bronchitis and how do they affect the respiratory system?
- Q.7** What is Osteomalacia? Explain its etiology, clinical features, and treatment.
- Q.8** Pathogenesis and clinical features of diabetes mellitus.
- Q.9** Define Inflammation?
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PHARMACOLOGY
PAPER CODE : 2534110116

General instructions:

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LONG ESSAY QUESTIONS

2 X 20 = 40 Marks

- Q.1** Describe the common drugs used in Arthritic Diseases, their importance in the overall treatment including Physiotherapy.
- Q.2** Drugs used in the treatment of Parkinson's disease along with Spasticity and Skeletal Muscle Relaxants.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Explain Pharmacokinetics and Pharmacodynamics.
- Q.4** Explain about Cholinergic and Anticholinergic drugs, Adrenergic and Adrenergic blocking drugs, Peripheral muscle relaxants.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Drugs Used in Treatment of Diabetes Mellitus.
- Q.6** What are the Antipsychotic drugs?
- Q.7** Calcium Channel Blockers.
- Q.8** Drugs Used in Treatment of Dementia.
- Q.9** Mention about Anti-Tuberculosis drugs.
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