

**ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, UTTAR PRADESH**

**BACHELOR OF PHYSIOTHERAPY (B.P.T)**

**FOURTH SEMESTER EXAMINATION - FEB 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.
- Be to the point.

**LONG ESSAY QUESTIONS**

**2 X 20 = 40 Marks**

- Q.1** What is LASER therapy? Write about various types of LASER, classifications of LASER, the principles of LASER production, and various methods of LASER application, physiological and therapeutic effects, contraindications & dangers of LASER therapy.
- Q.2** Define Shortwave Diathermy (SWD) and explain its principle of production. Discuss the electrode types, placement, and spacing for SWD treatment. Explain the physiological and therapeutic effects of SWD and list its indications, contraindications, and dangers.

**SHORT NOTE QUESTIONS**

**2 X 10 = 20 Marks**

- Q.3** Discuss the SD curve, the methods of plotting it, and the characteristics of a normally innervated muscle, partially denervated muscle, and completely denervated muscle.
- Q.4** What is Interferential Therapy (IFT)? Explain the principle behind the production of IFT.

**SHORT ANSWER QUESTIONS**

**5 X 4 = 20 Marks**

- Q.5** Define Ultrasound therapy and explain the piezoelectric effect.
- Q.6** Explain the wavelength, frequency, and production methods of MWD.
- Q.7** Discuss the basic principles and clinical applications of Electromyography (EMG), including the construction of EMG equipment.
- Q.8** Describe the method of application of phonophoresis, the commonly used drugs, and the dosage parameters.
- Q.9** Discuss Magnetotherapy & its uses.
-

**ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, UTTAR PRADESH**

**BACHELOR OF PHYSIOTHERAPY (B.P.T)**

**FOURTH SEMESTER EXAMINATION - FEB 2025**

**Time: 3 Hours**

**Max Marks: 80 Marks**

**EXERCISE THERAPY - II**

**PAPER CODE : 2534110114**

---

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.
- Be to the point.

**LONG ESSAY QUESTIONS**

**2 X 20 = 40 Marks**

- Q.1** Describe about the Mobilization and Manipulation, its indications, limitations, contraindications and precautions, Grades and applications of Mobilization technique to Ankle joint.
- Q.2** Describe about the types of posture, Normal Postural Control, Postural Alignment, Postural Stability, Postural Impairment and Mal-Alignment.

**SHORT NOTE QUESTIONS**

**2 X 10 = 20 Marks**

- Q.3** Explain about Gait Training, Different methods of Gait Training, Gait Training in Parallel Bars.
- Q.4** What are the Components of balance, Balance Impairment, Examination of Impaired Balance, Balance training Exercises.

**SHORT ANSWER QUESTIONS**

**5 X 4 = 20 Marks**

- Q.5** Explain about properties of water.
- Q.6** What is Plyometric Training?
- Q.7** Write about Rhythmic Stabilization.
- Q.8** Explain Postural Drainage.
- Q.9** Write about MET.
-

**ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, UTTAR PRADESH**

**BACHELOR OF PHYSIOTHERAPY (B.P.T)**

**FOURTH SEMESTER EXAMINATION - FEB 2025**

**Time: 3 Hours**

**Max Marks: 80 Marks**

**FIRST AID & EMERGENCY CARE**

**PAPER CODE : 2534110117**

---

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.
- Be to the point.

**LONG ESSAY QUESTIONS**

**2 X 20 = 40 Marks**

- Q.1** What is BLS guideline for adult and pediatrics, ACLS basic guidelines, CPR techniques and choking.
- Q.2** Describe about Assessment of sick or injured person, Mechanisms of injury Primary survey, Secondary survey, Head-to-toe examination and Monitoring vital signs.

**SHORT NOTE QUESTIONS**

**2 X 10 = 20 Marks**

- Q.3** Explain about Natural calamities.
- Q.4** Explain about First aid management of snake bite and poisoning.

**SHORT ANSWER QUESTIONS**

**5 X 4 = 20 Marks**

- Q.5** What is CPR?
- Q.6** Mention the first aid in Hanging.
- Q.7** Explain about Principle of Emergency care.
- Q.8** How to monitor Fire Accidents?
- Q.9** Role of Police and Ambulance in Emergency services.
-

**ATAL BIHARI VAJPAYEE MEDICAL UNIVERSITY, UTTAR PRADESH**

**BACHELOR OF PHYSIOTHERAPY (B.P.T)**

**FOURTH SEMESTER EXAMINATION - FEB 2025**

**Time: 3 Hours**

**Max Marks: 80 Marks**

**PATHOLOGY**

**PAPER CODE : 2534110118**

---

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.
- Be to the point.

**LONG ESSAY QUESTIONS**

**2 X 20 = 40 Marks**

- Q.1** Describe about the Parkinson's Disease. What are the causes, clinical features, Etiopathogenesis, pathology and management of Parkinson's?
- Q.2** Describe about the osteoporosis. What are the causes, clinical features, Etiopathogenesis, pathology and management of Osteoporosis?

**SHORT NOTE QUESTIONS**

**2 X 10 = 20 Marks**

- Q.3** Explain about the benign and malignant tumor.
- Q.4** Explain about the Odema, Hemorrhage, Embolism and Thrombosis.

**SHORT ANSWER QUESTIONS**

**5 X 4 = 20 Marks**

- Q.5** What is coronary heart disease.
- Q.6** Myofascial Pain syndrome.
- Q.7** Brief outline Jaundice its etiopathogenesis and diagnosis.
- Q.8** What is granuloma?
- Q.9** Explain Poliomyelitis.
-

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

**Time: 3 Hours**

**Max Marks: 80 Marks**

**PHARMACOLOGY**  
**PAPER CODE : 2534110116**

---

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.
- Be to the point.

**LONG ESSAY QUESTIONS**

**2 X 20 = 40 Marks**

- Q.1** Describe the common drugs used in Diabetes Mellitus, their importance in the overall treatment including Physiotherapy.
- Q.2** Drugs used in the treatment of heart failure along with Digitalis, Diuretics, Vasodilators, ACE inhibitors.

**SHORT NOTE QUESTIONS**

**2 X 10 = 20 Marks**

- Q.3** Explain Classification of drugs, Sources of drugs and Routes of drug administration.
- Q.4** Explain about Drugs used in Treatment of Parkinson's disease.

**SHORT ANSWER QUESTIONS**

**5 X 4 = 20 Marks**

- Q.5** Factors modifying drug response.
- Q.6** What are the Cholinergic and Anticholinergic drugs?
- Q.7** Skeletal Muscle Relaxants.
- Q.8** Drugs Used in Treatment of Rheumatoid Arthritis.
- Q.9** General principles of chemotherapy.
-