

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

Time: 3 Hours

Max Marks: 80 Marks

HUMAN ANATOMY II (INCLUDING APPLIED ANATOMY)

PAPER CODE: 2532110106

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 anatomy, function and clinical significance of the Cerebellum and Brain stem.
- Q.2** Describe the anatomy of the ankle joint in detail under following heading
- a) Structure of ankle Joint b) Ligaments c) Muscles d) Blood Supply
e) Nerve Supply f) Movements of the ankle joint
g) Common injuries & Clinical Relevance

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Describe the structure and function of the hypothalamus.
- Q.4** Describe the anatomy and structure of the cerebral hemisphere under following headings-
- a) location b) Components c) function d) Blood supply & e) Nutrition

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Popliteal fossa
- Q.6** Arches of foot
- Q.7** Blood supply to brain
- Q.8** Anatomy of triangles of neck.
- Q.9** Ossification of bones of lower limb
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SECOND YEAR EXAMINATION - SEPT 2025

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BIOMECHANICS AND KINESIOLOGY I

PAPER CODE: 2532110108

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 basic Principle of Human Joint design & Joint Function along with materials found in human joints.
- Q.2** Explain application of levers in physiotherapy & order of levers with example of lever in human body.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Explain the role of muscle synergists and antagonists during a specific movement, such as hamstring curl. Provide details about their contribution of the movement.
- Q.4** Describe types of motion and factor determining the kind and modification of motion.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Anatomical pulley
- Q.6** Hooke's Law
- Q.7** Changes in muscle with overuse
- Q.8** Coordination of muscular system
- Q.9** Properties of Springs
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HUMAN PHYSIOLOGY II (INCLUDING APPLIED PHYSIOLOGY)

PAPER CODE: 2532110107

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 physiology of the Pituitary gland focusing on hormones released and pituitary-hypothalamic relationship.
- Q.2** Describe the physiology of the renal system inclusion anatomy, glomerular filtration rate and neural control of micturition.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Describe the physiology of ovary and testis along with spermatogenesis.
- Q.4** Explain the glucose regulation in human body with respect of hormones released by pancreas.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Myxedema
- Q.6** Hormones released by adrenal cortex
- Q.7** Saliva composition and function
- Q.8** Menopause and puberty
- Q.9** Concentration of urine regulation of Na⁺, Cl⁻, K⁺ excretion
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Max Marks: 80 Marks

YOGA BASIC THEORY SCIENCES & TECHNIQUES

PAPER CODE: 2532110109

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** Analyse the role of yogic kriya and surya namaskar in yoga practice. What are the physiological and psychological benefits of yogic kriya and surya namaskar and how does they contribute to overall well-being.
- Q.2** Explain the concept of body in yoga with Pancha kosha theory and describe stress management through yoga.

SHORT NOTE QUESTIONS

2 X 10 = 20 Marks

- Q.3** Describe Physiological effects of Relaxation techniques and Meditation.
- Q.4** Discuss the significance of Mandukasana in yoga practice. What are its benefits, and how does it contribute in promoting relaxation.

SHORT ANSWER QUESTIONS

5 X 4 = 20 Marks

- Q.5** Physiological foundations of Yoga
- Q.6** Trataka
- Q.7** Kapalbhata
- Q.8** What is Yoga Nidra?
- Q.9** Concept of Health and Disease in yoga
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