

University 1st Year 2024

BACHELOR OF PHYSIOTHERAPY
First Year : SUMMER : 2024
SUBJECT: HUMAN ANATOMY

Day : Tuesday
Date : 11/06/2024

S-25044-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 80

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Draw neat diagram **WHEREVER** necessary.
- 4) Both the sections should be written in **SEPARATE** answerbook.

SECTION - A

- Q.1 Long Answer questions (Solve **ANY TWO** out of **THREE**) : (20)
- A) Describe post triangle of neck under --- (7+3)
- i) Boundaries, contents
 - ii) Applied anatomy
- B) Describe knee joint under --- (2+5+3)
- i) Classification, bones forming the joint
 - ii) Intra articular structures
 - iii) Locking and unlocking movement
- C) Describe cubital fossa under--- (5+5)
- i) Boundaries
 - ii) Contents
- Q.2 Write short notes (Solve **ANY FOUR** out of **FIVE**) : (20)
- a) Blood supply of heart
 - b) Hamstring muscles
 - c) Axillary nerve
 - d) Relations of spleen
 - e) Deltoid muscle

SECTION - B

- Q.3 Long Answer questions (Solve **ANY TWO** out of **THREE**) : (20)
- A) Describe tongue under--- (4+2+4)
- i) Gross anatomy
 - ii) Muscles of tongue
 - iii) Nerve supply
- B) Describe internal capsule of brain under--- (2+2+4+2)
- i) Parts
 - ii) Relations
 - iii) Fibers passing through
 - iv) Blood supply
- C) Describe thyroid gland under--- (5+2+3)
- i) Parts, relations
 - ii) Coverings
 - iii) Blood supply
- Q.4 Write short notes (Solve **ANY FOUR** out of **FIVE**) : (20)
- a) Root of lung
 - b) Sesamoid bone
 - c) Femoral artery
 - d) Supination pronation movements
 - e) Abdominal aorta

BACHELOR OF PHYSIOTHERAPY
First Year : SUMMER : 2024
SUBJECT: HUMAN PHYSIOLOGY

Day : Thursday
Date : 13/06/2024

S-25045-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 80

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Draw neat diagram **WHEREVER** necessary.
- 4) Both the sections should be written in **SEPARATE** answerbook.

SECTION - A

- Q.1** Long Answer questions (Attempt **ANY TWO**) : (2x10=20)
- a) Describe cardiac output. Give its normal value. Describe various factors determining cardiac output. (1+1+8)
 - b) Describe in detail neural regulations of respiration. Add a note on hypoxic hypoxia. (6+4)
 - c) Describe origin and spread of cardiac impulse. Draw and label various waves of electrocardiogram in lead II. Mention cause of each wave. (5+2+3)
- Q.2** Short Essay Questions (Attempt **ANY FOUR**) : (4x5=20)
- a) Respiratory changes in moderate exercise
 - b) Physiological actions of glucocorticoids.
 - c) Compositions and functions gastric secretion
 - d) Phases of menstrual cycle
 - e) Peculiarities of coronary circulation

SECTION - B

- Q.3** Long Answer questions (Attempt **ANY TWO**) : (2x10=20)
- a) Draw and label pyramidal tract. Describe origin, course, and termination of pyramidal tract. What is hemiplegia? (3+5+2)
 - b) With the help of diagram, explain transmission across neuromuscular junction. Add a note on myasthenia gravis. (2+5+3)
 - c) Define pain. Explain referred pain with theories and examples. Add a note on Brown Sequard Syndrome. (1+5+4)
- Q.4** Short Essay Questions (Attempt **ANY FOUR**) : (4x5=20)
- a) Functions of WBC
 - b) Action potential in large myelinated nerve fiber
 - c) Types of deafness
 - d) Parkinson's disease
 - e) Micturition reflex

BACHELOR OF PHYSIOTHERAPY
First Year : SUMMER : 2024
SUBJECT: BIOCHEMISTRY

Day : Saturday
Date : 15/06/2024

S-25046-2024

Time : 10:00 AM-12:00 PM
Max. Marks : 40

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicates **FULL** marks.
- 3) Draw neat and labelled diagram **WHEREVER** necessary.
- 4) Both the sections should be written in **SEPARATE** answer book.

SECTION-A

- Q.1** Short Answer Questions (Attempt **ANY FOUR**) (4x5=20)
- a) Tricarboxylic Acid (TCA) Cycle.
 - b) Phospholipids: Classification and Functions.
 - c) Diagnostic applications of enzymes.
 - d) Hemoglobin: Chemistry, Structure Types and Functions.
 - e) Beta oxidation of fatty acids with energetics.

SECTION-B

- Q.2** Short Answer Questions (Attempt **ANY FOUR**) (4x5=20)
- a) Atherosclerosis.
 - b) Urea cycle.
 - c) Calcium: Sources, Functions and Disorders.
 - d) Vitamin A: Sources, Functions and Deficiency manifestations.
 - e) ELISA: Principle, working and applications.

BACHELOR OF PHYSIOTHERAPY
First Year : SUMMER : 2024
SUBJECT: FUNDAMENTALS OF KINESIOLOGY & KINESIOTHERAPY

Day : Tuesday
Date : 18/06/2024

S-25047-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 80

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.
- 4) Draw neat labelled diagrams **WHEREVER** necessary.

SECTION-A

- Q.1** Write any **TWO** out of **THREE**: (20)
- a) Define Axis and Planes. Discuss its types in detail with examples.
 - b) Explain Sitting as a fundamental position. Describe any two derived position from Sitting.
 - c) Define Suspension therapy. Explain different types of Suspension with examples in detail.
- Q.2** Write any **FOUR** out of **FIVE**: (20)
- a) Describe Superficial Sensation.
 - b) Describe individual and Group exercises.
 - c) Describe Second Order lever and Mechanical advantage.
 - d) Describe Centre of Gravity and Base of Support.
 - e) Explain Isometric and Isotonic muscle work.

SECTION-B

- Q.3** Write any **TWO** out of **THREE**: (20)
- a) Define Active movements. Enumerate its classification. Explain Free Active exercises in detail.
 - b) Define Goniometry. Write types of Goniometer. Discuss technique of application for Hip flexion.
 - c) Define Relaxation. Discuss techniques of General Relaxation in detail.
- Q.4** Write any **FOUR** out of **FIVE**: (20)
- a) Describe normal end feels with examples.
 - b) Discuss fluid mechanics related to Hydrotherapy.
 - c) Explain any two Asanas from sitting position.
 - d) Describe Pulley with examples.
 - e) Describe shoulder Wheel and its uses.

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BACHELOR OF PHYSIOTHERAPY
First Year : SUMMER : 2024
SUBJECT: FUNDAMENTALS OF ELECTROTHERAPY

Day : Thursday
Date : 20/06/2024

S-25048-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 80

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Draw neat diagram **WHEREVER** necessary.
- 4) Both the sections should be written in **SEPARATE** answerbook.

SECTION - A

- Q.1 Attempt **ANY TWO** of the following : (20)
- a) Explain in detail different methods of application of cryotherapy. Write a note on Louise Hunting reaction.
 - b) Explain the contents of paraffin wax bath with its proportion and write methods of applications in detail.
 - c) Discuss in detail Physiological effects and Therapeutic effects of heat-therapy. Add a note on the construction of a Hydrocollator unit.
- Q.2 Write **ANY FOUR** of the following : (20)
- a) Define resistance. Explain factors determining the resistance. Write about resistance in series and resistance in parallel.
 - b) Properties of laser.
 - c) Biophysics of Ultrasound.
 - d) Describe types of IRR. Add a note on flaw detection principle.
 - e) Earth shock

SECTION - B

- Q.3 Attempt **ANY TWO** of the following : (20)
- a) Describe different type of electrodes used for low frequency currents. Discuss different wave forms of Faradic current and importance of surging.
 - b) Describe production of Short Wave Diathermy (SWD). Draw panel diagram of SWD and describe testing of SWD.
 - c) Write principles and production of IFT. Explain vector rotation in IFT.
- Q.4 Write **ANY FOUR** of the following : (20)
- a) Contrast bath
 - b) Theraktin tunnel
 - c) Testing of ultrasound
 - d) ~~Properties of laser~~. Describe various types of TENS
 - e) Grid system
