

Supplementary

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

Day : Tuesday
Date : 13/08/2024

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**) :
- A) Describe shoulder joint under --- (20)
(2+2+2+4)
 - i) Classification
 - ii) Bones forming joint
 - iii) Stability and mobility
 - iv) Movements and muscles producing movements
 - B) Describe the Boundaries and contents of Popliteal fossa. (5+5)
 - C) Describe brachial plexus under --- (3+4+3)
 - i) Formation
 - ii) Branches and distribution
 - iii) Applied Anatomy
- Q.2 Write short notes (Solve **ANY FOUR** out of **FIVE**) : (20)
- a) Relations of Right kidney
 - b) Classification of bones
 - c) Relations of stomach
 - d) Fallopian / uterine tube
 - e) Arterial supply of heart

SECTION - B

- Q.3 Long Answer questions (Solve **ANY TWO** out of **THREE**) :
- A) Describe cerebellum under --- (20)
(3+3+4)
 - i) Gross structure
 - ii) Nuclei
 - iii) Applied anatomy
 - B) Describe the parotid gland under--- (3+4+3)
 - i) Borders, surfaces
 - ii) Relations
 - iii) Nerve supply
 - C) Classify white matter of brain. Describe corpus callosum in detail. (3+7)
- Q.4 Write short notes (Solve **ANY FOUR** out of **FIVE**) : (20)
- a) Extra ocular muscles of eyeball
 - b) Contents of inguinal canal
 - c) Adductor canal
 - d) Differences between right and left lung
 - e) Tendocalcaneus

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

Day : Wednesday
Date : 14/08/2024

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) Define cardiac cycle. Enlist ventricular events during cardiac cycles. Elaborate in details various phases in ventricular diastole. (1+3+6)
 - b) Describe transport of oxygen. Add a note on hypoxia and its types. (6+4)
 - c) Define blood pressure. Enumerate mechanisms for blood pressure regulation. Explain long term regulation in detail. (1+3+6)
- Q.2** Short Essay Questions (Attempt **ANY FOUR**) : (4x5=20)
- a) Surfactant
 - b) Acromegaly
 - c) Composition and functions of pancreatic juice
 - d) Positive feedback mechanism
 - e) Peculiarities of pulmonary circulation

SECTION - B

- Q.3** Long Answer questions (Attempt **ANY TWO**) : (2x10=20)
- a) Define synapse. Explain steps of transmission. Enumerate properties of synapse. (2+5+3)
 - b) Define pain. Name the pathway. Describe pain analgesia system. (1+1+8)
 - c) Define sarcomere. Draw neat labelled diagram of sarcomere. Describe ratchet's theory of muscle contraction. (2+2+6)
- Q.4** Short Essay Questions (Attempt **ANY FOUR**) : (4x5=20)
- a) Parts of nephron
 - b) Functions of basal ganglia
 - c) Myasthenia gravis
 - d) Visual pathway
 - e) Erythroblastosis foetalis

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

Day : Friday
Date : 16/08/2024

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** indicate **FULL** marks.
 - 3) Draw neat and labelled diagrams **WHEREVER** necessary.
 - 4) Both the sections should be written in **SEPARATE** answer book.
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SECTION-A

Q.1 Short Answer Questions: (Attempt any **FOUR**) (4×5=20)

- a) Glycolysis.
- b) Lipids: Definition, classification and biomedical importance.
- c) Hemoglobin: Chemistry, structure and functions.
- d) Diagnostic and therapeutic applications of enzymes.
- e) Urea cycle.

SECTION-B

Q.2 Short Answer Questions: (Attempt any **FOUR**) (4×5=20)

- a) Calcium: Sources, functions and disorders.
- b) Atherosclerosis.
- c) Colorimetry: Principle, working and applications.
- d) Vitamin A: Sources, functions and deficiency manifestations.
- e) Protein Energy Malnutrition.

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

Day : Saturday
Date : 17/08/2024

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** Attempt any **THREE** out of **FOUR**: (20)
- a) Define lever and explain different types of levers with example. (2+8)
 - b) Write equipment used in suspension therapy. Explain axial suspension in detail. (4+6)
 - c) Describe kneeling as a fundamental position with muscle work and explain any two derived position from the same. (6+4)
- Q.2** Attempt any **FOUR** out of **FIVE**: (20)
- a) Explain chest expansion and chest excursion.
 - b) Describe deep sensations.
 - c) Describe Newton's law of motion.
 - d) Describe axis and planes.
 - e) Write advantages and disadvantages of group therapy.
 - f) Describe active and passive insufficiency.

SECTION-B

- Q.3** Attempt any **THREE** out of **FOUR**: (20)
- a) Write a principles goniometry. Describe technique of application in Radio ulnar joint. (8+2)
 - b) Describe active resisted movements. Explain progressive resisted exercises. (2+8)
 - c) Define relaxation. Describe Laurel Michael technique of relaxation. (2+8)
- Q.4** Attempt any **FOUR** out of **FIVE**: (20)
- a) Describe any two asana from supine in detail.
 - b) Describe kneading manipulation in massage.
 - c) Write the indications and contraindications of hydrotherapy.
 - d) Define 1 RM and 10 RM. Enumerate different equipments used in strengthening.
 - e) Describe active and passive insufficiency.
 - f) Describe types of equilibrium.

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

Day : Monday
Date : 19/08/2024

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** Long Answer questions (Attempt **ANY TWO**) : **(20)**
- a) Discuss in detail physiological effects and therapeutic effects of heat therapy. Add a note on various methods of application of Paraffin wax bath. (5+5)
 - b) Discuss physiological effects of contrast bath. Write about its indications and contraindications. Add a note on method of application. (2+4+4)
 - c) Describe Whirlpool therapy unit. Describe any two Whirlpool Baths. Explain the therapeutic effects; enlist indications and contraindications of same. (2+6+2)
- Q.2** Short Essay Questions (Write **ANY FOUR**) : **(20)**
- a) Make a check list of testing Nonluminous IRR lamp.
 - b) Vapocoolant sprays
 - c) State inverse square law and cosine's law.
 - d) Lewis hunting reaction
 - e) Importance of Tuning in SWD

SECTION - B

- Q.3** Long Answer questions (Attempt **ANY TWO**) : **(20)**
- a) Describe physiological and therapeutic effects of Direct Current (D.C.) and Interrupted Direct Current (I.D.C.). Explain various wave forms if IDC. (5+5)
 - b) Explain with a labelled diagram the production of Ultra Violet Radiation Lamp. Add a note on tridymite formation. (7+3)
 - c) Define TENS. Describe types of TENS with its parameters. Add a neat labeled Panel diagram. (1+6+3)
- Q.4** Short Essay Questions (Write **ANY FOUR**) : **(20)**
- a) Methods of testing ultrasound apparatus
 - b) Methods of rectification of alternating current
 - c) Grid system
 - d) Glove method in Paraffin Wax bath therapy
 - e) Define IFT. Draw a neat labeled Panel diagram
