

**R4689**

**Sub. Code**

**25BPY2C1**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Second Semester**

**Physical Education**

**ANATOMY AND PHYSIOLOGY**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Anatomy is the study of \_\_\_\_\_. (CO1, K1)
  - (a) Functions of organs
  - (b) Structure of the body
  - (c) Diseases
  - (d) Nutrition
2. The basic structural and functional unit of the body is \_\_\_\_\_. (CO1, K2)
  - (a) Tissue
  - (b) Organ
  - (c) Cell
  - (d) System
3. Which tissue connects muscles to bones? (CO2, K1)
  - (a) Tendon
  - (b) Nervous
  - (c) Epithelial
  - (d) Cartilage

4. The vertebral column belongs to which part of the skeleton? (CO2, K2)
- (a) Appendicular (b) Axial  
(c) Peripheral (d) Limb
5. The joint permitting maximum movement is \_\_\_\_\_. (CO3, K1)
- (a) Hinge joint  
(b) Pivot joint  
(c) Ball and socket joint  
(d) Gliding joint
6. The number of ribs in the human body is \_\_\_\_\_. (CO3, K2)
- (a) 12 pairs (b) 11 pairs  
(c) 10 pairs (d) 13 pairs
7. Red blood cells mainly help in \_\_\_\_\_ (CO4, K1)
- (a) Immunity (b) Blood clotting  
(c) Oxygen transport (d) Hormone secretion
8. Which part of the brain controls balance? (CO4, K2)
- (a) Cerebrum (b) Medulla  
(c) Pons (d) Cerebellum
9. The hormone secreted by the thyroid gland is \_\_\_\_\_. (CO5, K1)
- (a) Insulin (b) Thyroxine  
(c) Adrenaline (d) Growth hormone
10. The main function of the kidney is \_\_\_\_\_ (CO5, K2)
- (a) Digestion (b) Respiration  
(c) Excretion (d) Circulation

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Explain the types of tissues and their functions.  
(CO1, K3)

Or

- (b) Describe the arrangement and functions of the human skeleton.  
(CO1, K3)

12. (a) Discuss the structure and functions of a long bone.  
(CO2, K4)

Or

- (b) Explain classification and functions of joints with examples.  
(CO2, K4)

13. (a) Explain the constituents of blood and their functions.  
(CO3, K4)

Or

- (b) Describe the structure of the heart and circulation of blood.  
(CO3, K4)

14. (a) Explain the structure and functions of the brain.  
(CO4, K5)

Or

- (b) Describe the reflex arc with a neat diagram.  
(CO4, K5)

15. (a) Explain the process of digestion in the alimentary canal.  
(CO5, K6)

Or

- (b) Describe the structure and functions of the kidney.  
(CO5, K6)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Analyze the anatomical differences between male and female skeletons and their significance in sports. (CO1, K4)

Or

- (b) Examine the classification of bones and evaluate their role in movement. (CO1, K4)

17. (a) Analyze the structure and working of major synovial joints with suitable examples. (CO2, K6)

Or

- (b) Evaluate the role of skeletal muscles in physical performance. (CO2, K6)

18. (a) Critically analyze the cardiac cycle and its importance in sports activities. (CO3, K5)

Or

- (b) Evaluate lung volumes and their relevance to endurance sports. (CO3, K5)

19. (a) Examine the functions of endocrine glands and evaluate their role in growth and metabolism. (CO4, K6)

Or

- (b) Analyze the structure and function of sensory organs in coordination. (CO4, K6)

20. (a) Analyze the formation of urine and its role in maintaining homeostasis. (CO5, K5)

Or

- (b) Evaluate the role of digestive enzymes in nutrient absorption. (CO5, K5)

**R4690**

**Sub. Code**

**25BPY2E1**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Second Semester**

**Physical Education**

**Elective — SPORTS NUTRITION**

**(CBCS – 2025 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Sports nutrition mainly focuses on \_\_\_\_\_. (CO1, K1)
  - (a) Weight reduction
  - (b) Improving athletic performance
  - (c) Disease treatment
  - (d) Body building only
2. The recommended dietary allowance (RDA) refers to \_\_\_\_\_. (CO1, K2)
  - (a) Minimum intake for survival
  - (b) Average daily intake sufficient for most healthy people
  - (c) Maximum tolerable intake
  - (d) Intake for athletes only
3. The main function of carbohydrates during exercise is \_\_\_\_\_. (CO2, K1)
  - (a) Muscle repair
  - (b) Hormone production
  - (c) Energy supply
  - (d) Bone strength

4. Which nutrient yields the highest energy per gram? (CO2, K2)
- (a) Carbohydrates      (b) Proteins  
(c) Fats                      (d) Vitamins
5. Carbohydrate loading is mainly useful for (CO3, K1)
- (a) Short sprint events  
(b) Endurance activities  
(c) Strength training  
(d) Skill-based games
6. Fat-soluble vitamins include \_\_\_\_\_. (CO3, K2)
- (a) Vitamin B and C      (b) Vitamin A, D, E, K  
(c) Vitamin C only      (d) Vitamin B12 only
7. Dehydration during exercise primarily affects \_\_\_\_\_. (CO4, K1)
- (a) Reaction time and endurance  
(b) Bone density  
(c) Flexibility  
(d) Height
8. Heatstroke is mainly caused due to \_\_\_\_\_. (CO4, K2)
- (a) Excess protein intake  
(b) Poor hydration and high temperature  
(c) Vitamin deficiency  
(d) Overtraining only
9. Ergogenic aids are used to \_\_\_\_\_. (CO5, K1)
- (a) Cure injuries      (b) Enhance performance  
(c) Reduce appetite      (d) Increase body fat

10. A balanced diet includes \_\_\_\_\_. (CO5, K2)
- (a) Only carbohydrates
  - (b) Only proteins and fats
  - (c) All nutrients in proper proportions
  - (d) Supplements only

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Explain the role of nutrition in sports performance. (CO1, K3)

Or

- (b) Discuss factors to be considered while developing a nutrition plan for athletes. (CO1, K3)

12. (a) Describe the classification and functions of carbohydrates. (CO2, K4)

Or

- (b) Explain protein requirements and their role in muscle development. (CO2, K4)

13. (a) Explain the importance of hydration during exercise. (CO3, K4)

Or

- (b) Discuss daily caloric requirement and energy expenditure. (CO3, K4)

14. (a) Describe the functions of vitamins in sports performance. (CO4, K5)

Or

- (b) Explain the role of minerals in physical activity. (CO4, K5)

15. (a) Explain doping and its effects on health and sports. (CO5, K6)

Or

- (b) Discuss the role of dietary supplements in team sports. (CO5, K6)

**Part C** (5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Analyse the importance of carbohydrates, proteins, and fats in athletic performance. (CO1, K4)

Or

- (b) Evaluate the significance of diet planning using the food guide pyramid. (CO1, K4)

17. (a) Explain fluid needs during physical activity and temperature regulation. (CO2, K6)

Or

- (b) Discuss causes, symptoms, and prevention of heatstroke. (CO2, K6)

18. (a) Critically examine nutritional ergogenic aids and their impact on performance. (CO3, K5)

Or

- (b) Analyse the issue of doping in modern sports. (CO3, K5)

19. (a) Explain the female athletic triad and its nutritional implications. (CO4, K6)

Or

- (b) Evaluate the role of nutrition in preventing disordered eating. (CO4, K6)

20. (a) Design a diet plan for an athlete before, during, and after competition. (CO5, K5)

Or

- (b) Evaluate the role of sports drinks in enhancing performance. (CO5, K5)

**R5054**

**Sub. Code**

**720403**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Fourth Semester**

**Physical Education**

**PHYSIOLOGY OF EXERCISE**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Physiology of exercise mainly deals with———. (CO1, K1)
  - (a) Mechanical principles of movement
  - (b) Functional changes during physical activity
  - (c) Psychological responses to exercise
  - (d) Sociological aspects of sport
  
2. The Structural and functional unit of skeletal muscle is———. (CO1, K2)
  - (a) Sarcolemma
  - (b) Myofibril
  - (c) Sarcomere
  - (d) Myosin

3. Which muscle fiber type is best suited for endurance activities? (CO2, K1)
- (a) Types IIb
  - (b) Type IIx
  - (c) Fast glycolytic
  - (d) Type I
4. Sliding filament theory explains \_\_\_\_\_. (CO2, K2)
- (a) Muscle fatigue
  - (b) Muscle growth
  - (c) Muscle contraction
  - (d) Muscle repair
5. The immediate source of energy for muscular contraction is \_\_\_\_\_. (CO3, K1)
- (a) Glycogen
  - (b) ATP
  - (c) Lactic acid
  - (d) Creatine
6. Tidal volume refers to \_\_\_\_\_. (CO3, K2)
- (a) Maximum air inhaled
  - (b) Air remaining after forceful expiration
  - (c) Total lung capacity
  - (d) Air exchanged during normal breathing

7. Stroke volume is defined as \_\_\_\_\_. (CO4, K1)
- (a) Blood pressure per minute
  - (b) Blood pumped per beat
  - (c) Blood pressure in arteries
  - (d) Heart rate per minute
8. Cardiac output is the product of \_\_\_\_\_. (CO4, K2)
- (a) Stroke volume  $\times$  heart rate
  - (b) Heart rate  $\times$  blood pressure
  - (c) Stroke volume  $\times$  blood pressure
  - (d) Heart rate  $\times$  cardiac cycle
9. The basic unit of nervous system is \_\_\_\_\_. (CO5, K1)
- (a) Neuron
  - (b) Dendrite
  - (c) Axon
  - (d) Synapse
10. Reflex action is controlled mainly by \_\_\_\_\_. (CO5, K2)
- (a) Cerebrum
  - (b) Cerebellum
  - (c) Spinal cord
  - (d) Medulla oblongata

**Part B**

(5 × 5 = 25)

Answer **all** the questions not more than 500 words each.

11. (a) Explain the nature and scope of physiology of exercise. (CO1, K3)

Or

- (b) Describe the microscopic structure of skeletal muscle fiber. (CO1, K3)

12. (a) Explain the sliding filament theory of muscle contraction. (CO2, K4)

Or

- (b) Discuss the energy sources for muscular work during exercise. (CO2, K4)

13. (a) Explain ventilation during exercise. (CO3, K4)

Or

- (b) Describe lung volumes and capacities. (CO3, K4)

14. (a) Explain cardiac cycle with suitable phases.

(CO4, K5)

Or

- (b) Discuss blood pressure and its regulation during exercise. (CO4, K5)

15. (a) Explain reflex action and reflex arc. (CO5, K6)

Or

- (b) Describe nervous control of muscular movement.

(CO5, K6)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Analyze the types of muscle fibres and their physical properties with reference to sports performance. (CO1, K4)

Or

- (b) Evaluate the effects of exercise and training on skeletal muscles. (CO1, K4)

17. (a) Critically explain the effects of exercise and training on the respiratory system. (CO2, K6)

Or

- (b) Analyze the control of ventilation during exercise. (CO2, K6)

18. (a) Explain stroke volume, heart rate and cardiac output and their response to exercise. (CO3, K5)

Or

- (b) Evaluate the effects of exercise and training on the circulatory system. (CO3, K5)

19. (a) Analyze the structure and function of cardiac muscle in relation to exercise. (CO4, K6)

Or

- (b) Discuss the regulation of heart rate during exercise. (CO4, K6)

20. (a) Critically discuss the effects of exercise and training on the nervous system. (CO5, K5)

Or

- (b) Evaluate the role of the nervous system in motor control and coordination during exercise. (CO5, K5)
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**R5055**

**Sub. Code**

**720404**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Fourth Semester**

**Physical Education**

**THEORIES OF SPORTS AND GAMES – II**

**(BOXING, WEIGHT LIFTING, HANDBALL, HOCKEY,  
TENNIS, VOLLEYBALL AND YOGA)**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following questions by choosing the correct option.

1. Which year the volleyball game was invented? (CO1, K1)
  - (a) 1890
  - (b) 1895
  - (c) 1899
  - (d) 1898
  
2. Maximum number of Players for Handball (CO1, K1)
  - (a) 14
  - (b) 15
  - (c) 16
  - (d) 18

3. The standard duration of a round in amateur boxing is (CO2, K1)
- (a) 1 minute
  - (b) 3 minute
  - (c) 5 minute
  - (d) 4 minute
4. The total number of sets in a men's Grand Slam singles match is (CO2, K2)
- (a) 3
  - (b) 5
  - (c) 4
  - (d) 6
5. The primary purpose of warm-up is to (CO3, K1)
- (a) Cause fatigue
  - (b) Prepare the body for activity
  - (c) Reduce appetite
  - (d) Lower body temperature
6. Which is an example of a lead-up activity in football? (CO3, K1)
- (a) Full match
  - (b) Dribbling between cones
  - (c) Weight training
  - (d) Long rest

7. Which skill is used to move the ball with control in hockey? (CO4, K1)
- (a) Hitting
  - (b) Dribbling
  - (c) Flicking
  - (d) Tackling
8. Which skill is mainly used near the net in tennis? (CO4, K2)
- (a) Smash
  - (b) Slice
  - (c) Lob
  - (d) Volley
9. A rotation fault occurs when (CO5, K1)
- (a) Ball touches net
  - (b) Player serves out of turn
  - (c) Ball lands outside court
  - (d) Double hit occurs
10. A player is allowed to hold the ball without dribbling for (CO5, K2)
- (a) 2 seconds
  - (b) 3 seconds
  - (c) 4 seconds
  - (d) 5 seconds

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Write a note on the boxing ring and its dimensions.

(CO1, K1)

Or

- (b) Narrate the weight lifting and explain its importance.

(CO1, K2)

12. (a) List down the trophies of tennis tournament.

(CO2, K2)

Or

- (b) Draw a neat diagram of a Handball court. (CO2, K3)

13. (a) State the importance of Warm-up in physical activity.

(CO3, K3)

Or

- (b) Write a short note on flexibility in relation to general fitness.

(CO3, K3)

14. (a) List down the basic fundamental skills in hockey.  
(CO4, K2)

Or

- (b) Explain the lead-up drills in your chosen game.  
(CO4, K3)

15. (a) Explain the role of first referee and second referee in volleyball.  
(CO5, K4)

Or

- (b) List down any four principles of yoga.  
(CO5, K3)

**Part C** (5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) Describe weight categories, officials and competition procedure in weight lifting.  
(CO1, K3)

Or

- (b) Describe the origin and development of boxing in detail.  
(CO1, K4)

17. (a) Draw a neat diagram of the court, rules, and officials of volleyball.  
(CO2, K3)

Or

- (b) Trace the origin and development of Hockey from ancient to modern times.  
(CO2, K4)

18. (a) Elaborate the training methods for Handball players. (CO3, K4)

Or

(b) Discuss the role of Warm-up and Warm-down in a General Fitness programme. (CO3, K3)

19. (a) Briefly explain Ashtanga Yoga and its eight limbs. (CO4, K3)

Or

(b) Describe lead-up activities and drills for any one game of your choice. (CO4, K5)

20. (a) Describe the mechanism of officiating in Tennis. (CO5, K4)

Or

(b) Elaborate the scoring system and duties of official in tennis game. (CO5, K4)

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**R5056**

**Sub. Code**

**7204E1**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Fourth Semester**

**Physical Education**

**Elective – HEALTH EDUCATION**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Health education mainly aims to ——— (CO1, K2)
  - (a) Treat diseases
  - (b) Promote healthy lifestyle
  - (c) Build hospitals
  - (d) Provide medicines
  
2. First aid is defined as ——— (CO1, K1)
  - (a) Complete medical treatment
  - (b) Temporarily given before professional care
  - (c) Surgical treatment
  - (d) Home remedies only

3. Which is part of safety education? (CO2, K1)
- (a) Learning medicines
  - (b) Preventing accidents
  - (c) Treating fractures
  - (d) Diagnosing illness
4. In the RICE method, the letter R stand for (CO2, K2)
- (a) Rotate
  - (b) Rest
  - (c) Run
  - (d) Raise
5. Safety education helps to —— (CO3, K2)
- (a) Cure diseases
  - (b) Prevent injuries
  - (c) Perform surgeries
  - (d) Prescribe drugs
6. A fracture is —— (CO3, K1)
- (a) Stretching of ligaments
  - (b) Dislocation of joint
  - (c) Break in a bone
  - (d) Muscle tear

7. Which of the following is a type of fracture? (CO4, K2)
- (a) Simple fracture
  - (b) Muscles strain
  - (c) Sprain
  - (d) Cramp
8. A Sprain is injury to —— (CO4, K1)
- (a) Bones
  - (b) Muscles
  - (c) Ligaments
  - (d) Tendons
9. A greenstick fracture is happens to —— (CO5, K1)
- (a) Adults
  - (b) Elderly people
  - (c) Children
  - (d) Athletes
10. Which of the following is a communicable disease? (CO5, K2)
- (a) Diabetes
  - (b) Cancer
  - (c) Tuberculosis
  - (d) Arthritis

**Part B**

(5 × 5 = 25)

Answer **all** the questions not more than 500 words each.

11. (a) Define Health Education and write it needs. (CO1, K3)

Or

- (b) What is Mental Health? (CO1, K3)

12. (a) Classify the communicable disease by it causes. (CO2, K4)

Or

- (b) Write about diabetes mellitus? (CO2, K4)

13. (a) List out the need for Safety Education in Physical Education. (CO3, K5)

Or

- (b) How to maintain safety in a school play area? (CO3, K5)

14. (a) Give short note on first aid kit and its uses (CO4, K4)

Or

- (b) Enumerate the types of Bandages. (CO4, K4)

15. (a) How and whom to apply CPR? (CO5, K6)

Or

(b) Define Therapy and write the classification of Therapy. (CO5, K6)

**Part C** (5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) Explain the components of Health (CO1, K5)

Or

(b) Describe Balanced diet and its benefits. (CO1, K5)

17. (a) Explain the non communicable disease with symptoms and prevention? (CO2, K4)

Or

(b) Write the methods to prevent communicable disease? (CO2, K4)

18. (a) Explain the principles of safety education. (CO3, K4)

Or

(b) How establish safety in swimming pool? (CO3, K4)

19. (a) Detail the procedure of RICE and PRICE. (CO4, K6)

Or

(b) Distinguish open and closed wound with examples. (CO4, K6)

20. (a) Explain the types of fracture. (CO5, K5)

Or

(b) Describe cryotherapy and its application. (CO5, K5)

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**R5057**

**Sub. Code**

**720601**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Sixth Semester**

**Physical Education**

**KINESIOLOGY AND BIOMECHANICS IN PHYSICAL  
EDUCATION**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Who is called as father of Kinesiology? (CO1, K1)
  - (a) Claudius Galen
  - (b) Aristotle
  - (c) Archimedes
  - (d) Sir Isaac Newton
  
2. Kinesiology helps physical education teachers to (CO1, K1)
  - (a) Understand how students move and exercise
  - (b) Teach only math lessons
  - (c) Learn about space and planets
  - (d) Draw pictures

3. What is the main action of the quadriceps muscle group?  
(CO2, K2)
- (a) Flexing the arm
  - (b) Extending the knee
  - (c) Bending the back
  - (d) Rotating the shoulder
4. The origin of a muscle is the point where the muscle  
(CO2, K1)
- (a) Moves the most during contraction
  - (b) Attaches to the stationary bone
  - (c) Ends at the skin
  - (d) Has no function
5. The Change in position with respect to time is known as \_\_\_\_\_  
(CO3, K2)
- (a) Projectile
  - (b) Velocity
  - (c) Trajectory
  - (d) Acceleration
6. What type of motion occurs when a body moves in a straight line?  
(CO3, K1)
- (a) Angular motion
  - (b) Linear motion
  - (c) Circular motion
  - (d) Rotational motion

7. What type of motion takes place when a body moves around a fixed point? (CO4, K2)
- (a) Linear motion
  - (b) Angular motion
  - (c) Curvilinear motion
  - (d) Straight motion
8. United by ligaments is called as (CO4, K1)
- (a) Cartilaginous
  - (b) Ligamentous
  - (c) Fibrous
  - (d) None of the above
9. What is mass? (CO5, K1)
- (a) amount of space an object takes up
  - (b) amount of matter in an object
  - (c) weight of an object on Earth only
  - (d) the speed of an object
10. Which of the following is an example of static equilibrium? (CO5, K1)
- (a) A runner sprinting
  - (b) A person standing still
  - (c) A car accelerating
  - (d) A ball rolling down a hill

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Describe the history of Kinesiology. (CO1, K5)

Or

- (b) Analyze the importance of Kinesiology in the field of Physical Education. (CO1, K5)

12. (a) Draw a neat diagram of origin and Insertion of Triceps muscle. (CO2, K3)

Or

- (b) Draw a neat diagram of origin and Insertion of Rectus Femoris muscle. (CO2, K3)

13. (a) Elucidate the Types of planes. (CO3, K4)

Or

- (b) Illustrate the Axis in detail. (CO3, K4)

14. (a) Write the classification of motion. (CO4, K4)

Or

- (b) Define biomechanics. Explain how it helps in sports performance. (CO4, K4)

15. (a) Derive the mechanical principles of GAIT. (CO5, K6)  
Or

(b) Enumerate the biomechanical principles in Throwing. (CO5, K6)

**Part C** (5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) List out the types movement in joints. (CO1, K6)

Or

(b) Explain the classification of Synovial Joints. (CO1, K6)

17. (a) Draw the origin, insertion and movement possible in Pectoralis Major. (CO2, K4)

Or

(b) Draw the origin, insertion and movement possible in Hamstring. (CO2, K4)

18. (a) Describe the Muscular Design and types in details. (CO3, K5)

Or

(b) Explain the types of muscular contraction with examples. (CO3, K5)

19. (a) Explain the types of lever with sports examples. (CO4, K6)

Or

(b) Elucidate Equilibrium and sports implication. (CO4, K6)

20. (a) Write the applications of biomechanical principles in Jumping. (CO5, K5)

Or

(b) Write the applications of biomechanical principles in your game of specialization? (CO5, K5)

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**R5058**

**Sub. Code**

**720602**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Sixth Semester**

**Physical Education**

**SPORTS MEDICINE**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Which therapeutic modality is most effective for first 48 hours after injury? (CO1, K1)
  - (a) Ultrasound
  - (b) Cryotherapy
  - (c) Shortwave diathermy
  - (d) Paraffin wax bath
  
2. The primary goal of isometric exercises in early rehabilitation is to \_\_\_\_\_. (CO1, K2)
  - (a) Increase joint range of motion
  - (b) Improve cardiovascular endurance
  - (c) Maintain muscle strength without joint movement
  - (d) Increase muscle length
  
3. Which exercise is most suitable during late rehabilitation? (CO2, K1)
  - (a) Isometric exercise
  - (b) Passive movement
  - (c) Functional exercise
  - (d) Bed rest

4. Which modality is commonly used to reduce pain and swelling? (CO2, K1)
- (a) Heat therapy      (b) Cryotherapy  
(c) Ultrasound      (d) Massage
5. Which exercise helps improve muscle strength? (CO3, K1)
- (a) Passive movement  
(b) Breathing exercise  
(c) Resistance exercise  
(d) Relaxation exercise
6. TENS is primarily used to (CO3, K1)
- (a) Improve muscle flexibility  
(b) Reduce pain  
(c) Increase muscle hypertrophy  
(d) Improve joint stability
7. Stretching exercises mainly help to improve (CO4, K1)
- (a) Strength      (b) Endurance  
(c) Flexibility      (d) Power
8. Which type of muscle contraction produces force while the muscle lengthens? (CO4, K2)
- (a) Isometric      (b) Concentric  
(c) Eccentric      (d) Isokinetic
9. Which phase of rehabilitation comes first after injury? (CO5, K1)
- (a) Functional phase      (b) Conditioning phase  
(c) Acute phase      (d) Return-to-play phase
10. Which modality is used to decrease muscle spasm? (CO5, K2)
- (a) Cryotherapy      (b) Heat therapy  
(c) Traction      (d) Shockwave therapy

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) List out the importance of Sports Medicine. (CO1, K5)

Or

- (b) Write the methods of injury prevention. (CO1, K5)

12. (a) Describe the need and importance of Physiotherapy. (CO2, K6)

Or

- (b) Give detail note on cold modalities. (CO2, K6)

13. (a) Define Electrical modalities and list out it. (CO3, K3)

Or

- (b) Write the procedure of whirlpool bath. (CO3, K3)

14. (a) What is Rehabilitation and write its need? (CO4, K4)

Or

- (b) Who is Sports Physician and write their role in sports? (CO4, K4)

15. (a) What is Therapeutic Exercise and classify it? (CO5, K5)

Or

- (b) Suggest some of strengthening exercise for lower body. (CO5, K5)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Explain Sports Medicine and its need in the field of Sports. (CO1, K5)

Or

- (b) What is Injury Management? (CO1, K5)

17. (a) List out the types of therapeutic modalities with its benefits. (CO3, K6)

Or

- (b) Enumerate the Roll and importance of Physiotherapy in sports. (CO2, K6)

18. (a) Briefly describe the procedure for Ultra Violet Rays. (CO3, K4)

Or

- (b) Enlighten the benefits of Short wave Diathermy. (CO3, K4)

19. (a) Explain the principles of Rehabilitation in detail. (CO4, K6)

Or

- (b) Make a clear note on Scope of Rehabilitation. (CO4, K6)

20. (a) What is Massage and classify the manipulation techniques? (CO5, K5)

Or

- (b) Write the Uses and Contraindications of Massage in detail. (CO5, K5)

**R5059**

**Sub. Code**

**720603**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Sixth Semester**

**Physical Education**

**TEST, MEASUREMENT AND EVALUATION IN  
PHYSICAL EDUCATION AND SPORTS**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Which term refers to the process of assigning numbers or scores to performance? (CO1, K1)
  - (a) Test
  - (b) Measurement
  - (c) Evaluation
  - (d) Training
  
2. One key purpose of evaluation is to: (CO1, K1)
  - (a) Compare students with others only
  - (b) Make informed decisions about improvement
  - (c) Conduct games
  - (d) Count repetitions

3. A test is said to be reliable if (CO2, K1)
- (a) It measures consistently over time
  - (b) It measures what it is intended to measure
  - (c) Scores depend on the examiner's mood
  - (d) It is easy to administer
4. Which is true about a teacher-made test? (CO2, K1)
- (a) It is always standardized
  - (b) It can be tailored to class needs
  - (c) It is not subject to scoring
  - (d) It cannot be used for evaluation
5. The Leg Dynamometer Test measures (CO3, K2)
- (a) Leg strength
  - (b) Endurance
  - (c) Agility
  - (d) Cardiovascular fitness
6. The Hardware Step Test is primarily used to assess (CO3, K2)
- (a) Flexibility
  - (b) Aerobic capacity
  - (c) Muscle strength
  - (d) Speed

7. The 600 m run in SDAT evaluates (CO4, K1)
- (a) Agility
  - (b) Cardiovascular endurance
  - (c) Hand-eye coordination
  - (d) Flexibility
8. Which SDAT test is mainly used for assessing throwing ability? (CO4, K2)
- (a) Standing broad jump
  - (b) Ball throw
  - (c) Shuttle run
  - (d) 30 m Fly Run
9. The Scimitars French Field Hockey Test is used to assess (CO5, K1)
- (a) Hockey skills
  - (b) Soccer endurance
  - (c) Volleyball agility
  - (d) Tennis precision
10. The Johnson Basketball Test primarily evaluates (CO5, KI)
- (a) Shooting accuracy and dribbling
  - (b) Sprinting speed
  - (c) Flexibility
  - (d) Cardiovascular fitness

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Simplify the measurement in physical education. (CO1, K3)

Or

- (b) Select the meaning and definition of Test and Education. (CO1, K3)

12. (a) Differentiate between Standardized Test and Teacher-Made Test. (CO2, K4)

Or

- (b) Explain objectivity in test scoring. (CO2, K4)

13. (a) Explain the purpose of the Grip Strength Test. (CO3, K5)

Or

- (b) Explain the JCR Test for Motor Fitness. (CO3, K5)

14. (a) Explain the 30 m Fly Run test and its significance. (CO4, K5)

Or

- (b) Describe the Standing Broad Jump test. (CO4, K5)

15. (a) Explain the Johnson Basketball Test. (CO5, K5)

Or

- (b) Describe the Miller Wall Volley Test for Badminton. (CO5, K5)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Explain in detail the meaning of Test, Measurement and Evaluation with suitable examples from Physical Education. (CO1, K4)

Or

- (b) Discuss the need and importance of Measurement and Evaluation in Physical Education. Highlighting its role in student assessment and program planning. (CO1, K4)
17. (a) Explain the criteria of test selection: validity, reliability, objectivity and norms, with examples. (CO2, K5)

Or

- (b) Describe Rating Scales (subjective and objective) and explain the procedure of test administration. (CO2, K6)
18. (a) Explain the Newton Motor Ability Test, including purpose and procedure. (CO3, K5)

Or

- (b) Describe cardiovascular endurance tests: Harvard Step Test and Cooper's 12 minutes run/walk test. (CO3, K6)
19. (a) Explain in detail the SDAT tests: (i) 30 m Fly Run, (ii) 600 m Run, (iii) Ball Throw. (CO4, K6)

Or

- (b) Describe the Shuttle Run (6 × 10 m) and explain its procedure, scoring and importance. (CO4, K6)

20. (a) Evaluate the Borer—Miller Tennis Test, including purpose, procedure and scoring. (CO5, K6)

Or

- (b) Describe in detail the Russell-Lange Volleyball Test. (CO5, K6)
-

**R5060**

**Sub. Code**

**720604**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Sixth Semester**

**Physical Education**

**SPORTS MANAGEMENT**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Sports management combines (CO1, K1)  
(a) Science and art (b) Games and rules  
(c) Fitness and health (d) Play and rest
2. Which is a function of sports management? (CO1, K1)  
(a) Planning (b) Exercising  
(c) Playing (d) Resting
3. Personnel policies are framed to (CO2, K2)  
(a) Punish employees  
(b) Guide employee management  
(c) Reduce sports activities  
(d) Increase workload
4. Programme management mainly focuses on (CO2, K2)  
(a) Finance  
(b) Organizing sports events  
(c) Equipment purchase  
(d) Marketing

5. Market awareness means (CO3, K1)
- (a) Knowing rules of the game
  - (b) Understanding customer needs
  - (c) Training athletes
  - (d) Conducting competitions
6. Price of sports products depends on (CO3, K1)
- (a) Quality
  - (b) Demand
  - (c) Cost
  - (d) All of the above
7. Proper storage of equipment helps in (CO4, K1)
- (a) Damage
  - (b) Safety and durability
  - (c) Loss
  - (d) Misuse
8. Equipment checking should be done (CO4, K1)
- (a) Occasionally
  - (b) Daily
  - (c) Before and after use
  - (d) Yearly
9. Raising of funds includes (CO5, K1)
- (a) Donations
  - (b) Sponsorship
  - (c) Grants
  - (d) All of the above
10. Budget record maintenance is important for (CO5, K1)
- (a) Discipline
  - (b) Financial planning
  - (c) Transparency
  - (d) All of the above

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Simplify the importance of Sports Management. (CO1, K4)

Or

- (b) Write short notes on the scope of Sports Management. (CO1, K4)

12. (a) Simplify the personnel requirements in sports organizations. (CO2, K4)

Or

- (b) Define Personnel Management. (CO2, K4)

13. (a) What are sports products? (CO3, K3)

Or

- (b) Sketch the market awareness in sports marketing. (CO3, K3)

14. (a) Explain the importance of an equipment room. (CO1, K5)

Or

- (b) Write short notes on supply of sports equipment (CO4, K4)

15. (a) List the types of budgets used in sports organizations. (CO5, K4)

Or

- (b) What is raising of funds in sports organizations? (CO5, K4)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Define Sports Management and explain its functions in detail. (CO1, K4)
- Or
- (b) Describe the basic principles of Sports Management. (CO1, K4)
17. (a) Explain Personnel Policies and their importance in sports management. (CO2, K5)
- Or
- (b) Discuss the objectives and role of a Personnel Manager. (CO2, K6)
18. (a) Evaluate the market awareness and its role in sports marketing. (CO3, K6)
- Or
- (b) Explain the factors influencing sports marketing. (CO3, K5)
19. (a) Describe guidelines for selection and supply of sports equipment. (CO4, K6)
- Or
- (b) Illustrate about the equipment care, maintenance, and storage procedures. (CO4, K6)
20. (a) Explain the types of budgets used in sports and fitness enterprises. (CO5, K5)
- Or
- (b) Discuss accounting systems and budget record maintenance in sports management. (CO5, K6)

**R5061**

**Sub. Code**

**7206E1**

**B.Sc. DEGREE EXAMINATION, APRIL – 2026**

**Sixth Semester**

**Physical Education**

**Elective – SPORTS INJURY AND PHYSIOTHERAPY**

**(CBCS – 2022 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the following objective type questions by choosing the correct option.

1. Sports injury can be defined as \_\_\_\_\_ (CO1, K1)
  - (a) Any illness occurring during sports
  - (b) Damage to tissues due to physical activity
  - (c) Mental fatigue during training
  - (d) Nutritional deficiency
  
2. The primary aim of physiotherapy is to \_\_\_\_\_. (CO1, K2)
  - (a) Improve flexibility only
  - (b) Restore and maintain functional movement
  - (c) Increase body weight
  - (d) Improve endurance

3. Which of the following is an example of a closed wound?  
(CO2, K1)
- (a) Incised wound
  - (b) Laceration
  - (c) Contusion
  - (d) Abrasion
4. Acute injuries are best described as injuries that \_\_\_\_\_.  
(CO2, K2)
- (a) Occur due to overuse
  - (b) Develop over a long period
  - (c) Occur suddenly
  - (d) Are painless
5. Cryotherapy is mainly used to \_\_\_\_\_ (CO3, K1)
- (a) Increase blood flow
  - (b) Reduce inflammation and pain
  - (c) Improve muscle strength
  - (d) Increase body temperature
6. Shortwave diathermy is a form of \_\_\_\_\_.  
(CO3, K2)
- (a) Hydrotherapy
  - (b) Massage therapy
  - (c) Electrotherapy
  - (d) Manual therapy

7. Which therapeutic exercise involves movement without patient effort? (CO4, K1)
- (a) Active exercise
  - (b) Active resisted exercise
  - (c) Assisted exercise
  - (d) Passive exercise
8. Swedish massage system includes all except \_\_\_\_\_. (CO4, K2)
- (a) Effleurage
  - (b) Petrissage
  - (c) Tapotement
  - (d) Traction
9. Sauna bath is mainly used for (CO5, K1)
- (a) Cold application
  - (b) Heat application
  - (c) Electrical stimulation
  - (d) Muscle contraction
10. Physiological effect of massage includes \_\_\_\_\_. (CO5, K2)
- (a) Reduced circulation
  - (b) Increased muscle stiffness
  - (c) Improved blood circulation
  - (d) Joint immobilization

**Part B**

(5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Explain the preventive measures for sports injuries with suitable examples. (CO1, K3)

Or

- (b) List out the importance of physiotherapy in sports injury rehabilitation. (CO1, K3)

12. (a) Differentiate between open and closed wounds based on causes and symptoms. (CO2, K4)

Or

- (b) Explain acute and chronic sports injuries with suitable sports examples. (CO2, K4)

13. (a) Explain the principles and applications of cryotherapy in sports injuries. (CO3, K4)

Or

- (b) Analyse the therapeutic effects of thermotherapy in injury management. (CO3, K4)

14. (a) Explain the role of active resisted exercises in strengthening injured muscles. (CO4, K5)

Or

- (b) Design a basic therapeutic exercise programme for a lower limb injury. (CO4, K5)

15. (a) Explain the classification of massage manipulations under the Swedish system. (CO5, K6)

Or

- (b) Explain the physiological effects of massage on the human body. (CO5, K6)

**Part C**

(5 × 8 = 40)

Answer **all** questions not more than 1000 words each.

16. (a) Analyse the causes, symptoms, and prevention of sports injuries in athletes. (CO1, K4)

Or

- (b) Explain the role of physiotherapy principles in long-term injury prevention. (CO1, K4)

17. (a) Compare and contrast acute and chronic injuries with reference to treatment approaches. (CO2, K6)

Or

- (b) Critically assess the effectiveness of early injury management techniques in sports. (CO2, K6)

18. (a) Examine the applications of hydrotherapy techniques in sports injury rehabilitation. (CO3, K5)

Or

- (b) Evaluate the role of electrotherapy modalities in pain management. (CO3, K5)

19. (a) Design a comprehensive therapeutic exercise programme for an injured athlete. (CO4, K6)

Or

- (b) Critically examine the role of active and passive exercises in recovery. (CO4, K6)

20. (a) Evaluate the physiological and psychological benefits of massage in sports. (CO5, K5)

Or

- (b) Evaluate the historical development and modern application of massage therapy in sports. (CO5, K5)
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