

No. of Printed Pages: 3

Roll No.....

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DEPARTMENT OF PHYSIOTHERAPY
SCHOOL OF NURSING SCIENCES & ALLIED HEALTH**

BPT 4th YEAR, ANNUAL EXAMINATION, MAY 2023

SPORTS PHYSIOTHERAPY (THEORY)

PAPER CODE: BPT – 465

Time: 3 hours

Maximum Marks: 75Marks

(Write your Roll No. on top of the paper immediately)

Note: (i) Attempt ALL questions

(ii) Choices are mentioned wherever applicable

(iii) Parts of a question must be answered together

(iv) Draw diagrams wherever necessary

(v) Give examples wherever necessary

SECTION – A

Multiple Choice Questions (All are compulsory)

(15 × 1 Mark = 15 Marks)

Q1. The most immediate source of energy available to support exercise is

- a) ATP b) ADP c) Glycogen d) Phosphocreatine

Q2. Which body composition method is used to measure body's mineral content

- a) Magnetic Resonance Imaging b) Dual-energy X-ray absorptiometry
c) Skinfold Thickness d) None of the above

Q3. The Lachman's Test is used to evaluate stability of which of the following

- a) Medial collateral ligament b) Anterior cruciate ligament
c) Meniscus d) Patellar femoral joint

Q4. Acetyl CoA is formed in which of the metabolic pathways for carbohydrates

- a) Glycolysis b) Electron transport chain
c) Krebs cycle d) Breakdown of Phosphocreatine (PCr)

Q5. Which foundation works to detect the use of drugs in sports

- a) The Anti-Doping League b) International Drug in Sports Committee
c) World Anti-Doping Agency d) All of the above

- Q6. The force that is generated at the front of the object during movement.
- a) Buoyant force
 - b) Specific gravity
 - c) Bow force
 - d) Drag force
- Q7. When using bioelectrical impedance for measuring body composition, why does an electrical current travel faster through muscle than it does through fat
- a) Muscle contains less water than fat
 - b) Muscle contains more water than fat
 - c) Muscle weighs more than fat
 - d) Muscle weighs less than fat
- Q8. Which one is not a component of female athletic triad
- a) Osteoporosis
 - b) Disordered eating
 - c) Insulin sensitivity
 - d) Amenorrhea
- Q9. What is the density of fat free mass
- a) 0.730 g/cm^3
 - b) 0.900 g/cm^3
 - c) 1.100 g/cm^3
 - d) None of the above
- Q10. The respiratory exchange ratio (RER) is calculated from
- a) The volume of carbon dioxide produced divided by the volume of oxygen consumed
 - b) The volume of oxygen consumed divided by the volume of carbon dioxide produced
 - c) The rate of ventilation
 - d) The point at which blood lactate levels start to increase rapidly
- Q11. Which of the following is not a plyometric exercise
- a) Box jumps
 - b) Lateral hops
 - c) 3 km run
 - d) Tuck jumps
- Q12. When holding a barbell in hand in a static position, the net torque around the elbow joint would be
- a) Zero
 - b) 1
 - c) 0.1
 - d) None of the above
- Q13. What is the criteria for a diagnosis of flail chest?
- a) Floating ribs at the bottom of the rib cage
 - b) Broken ribs on both sides of the chest
 - c) Three or more broken ribs broke on the same side
 - d) Two or more ribs broke in two or more places

Q14. Which of these is a symptom of a concussion

- a) Nausea and vomiting b) Confusion
- c) Vision problems d) All of the above

Q15. What is the final (last) phase of sports rehabilitation

- a) Sports/task-specific activities
- b) Immobilization
- c) Restoring range of motion
- d) Strengthening

SECTION - B

Answer any **THREE** of the following:

(3 × 10 Marks = 30 Marks)

- Q1. What is Body Composition Analysis? Write about various techniques to measure BCA?
- Q2. Describe in detail basic principles of Training in sports?
- Q3. Describe most common medical problems in athletes?
- Q4. What are the methods of measurement and evaluation of aerobic energy systems?

SECTION - C

Answer any **TWO** of the following:

(2 × 15 Marks = 30 Marks)

- Q1. Describe mechanism, prevention and physiotherapy management of head injuries in sports?
- Q2. Describe prerequisites for upper extremity plyometrics? What are the training variables to consider while designing an upper extremity plyometric program?
- Q3. Explain in detail the role of Aquatic therapy in spinal cord injury rehabilitation?
