



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCE
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF SEPT-DECEMBER 2024 TRIMESTER EXAMINATIONS**

UNIT CODE: PHT 312 UNIT NAME: SPORTS PHYSIOTHERAPY 1

DATE: Monday/ 9th/ December

TIME: TWO HOURS

START: 11.15 STOP : 1.15PM

INSTRUCTIONS (physical exams)

Do not write on this question paper

(Marks and questions distribution as per program curriculum.)

- 1. This exam is marked out of 70 marks**
- 2. This Examination comprises 3 Sections**
- 3. This exam shall take 2 Hours**

SECTION A-MULTIPLE CHOICE QUESTION (30 MARKS)

1. Which of the following is a key principle of sports medicine?
 - A. Increasing endurance without injury
 - B. Maximizing muscle soreness
 - C. Preventing injuries and promoting athlete health
 - D. Focusing only on weight training
2. Which of the following is an essential component of medical management for a traveling team?
 - A. Bringing extra water bottles
 - B. Assessing each player's health status before departure
 - C. Packing snacks from home
 - D. Avoiding any non-urgent medical check-ups
3. What test might be used to assess cardiovascular endurance in an athlete?
 - A. Vertical jump test
 - B. 20-meter shuttle run (Beep Test)
 - C. Grip strength test
 - D. Sit and reach test
4. During a physical assessment, if a player shows limited range of motion in a joint, what might this indicate?
 - A. High endurance levels
 - B. Potential muscle tightness or injury
 - C. Excellent flexibility
 - D. Poor cardiovascular health
5. Which type of injury is commonly managed by stretching and strengthening exercises?
 - A. Concussions
 - B. Ligament tears
 - C. Muscle strains
 - D. Bone fractures
6. What is one way athletes can prepare for competition at high altitudes?
 - A. Avoiding altitude training
 - B. Acclimatizing by training at high altitudes beforehand
 - C. Drinking more water during training
 - D. Wearing warmer clothing
7. What is the primary goal of a recovery nutrition plan for athletes after intensive exercise?
 - A. Weight gain
 - B. Muscle repair and glycogen replenishment
 - C. Increased calorie intake
 - D. Dehydration prevention only

8. How soon after exercise should an athlete ideally consume protein and carbohydrates to optimize recovery?
 - A. Immediately
 - B. 2–3 hours later
 - C. 10 minutes before exercise
 - D. Within 30–60 minutes
9. During long-duration, low-intensity activities, what type of carbohydrates are recommended?
 - A. Simple sugars
 - B. Complex carbohydrates for sustained energy
 - C. No carbohydrates at all
 - D. Fiber-rich carbs only
10. A proper warm-up before a match should include:
 - A. High-intensity exercises only
 - B. Light stretching, dynamic movements, and sport-specific drills
 - C. Mental exercises only
 - D. Static stretching exclusively
11. How does sports massage aid in recovery?
 - A. By making muscles rigid
 - B. By reducing muscle tension and increasing circulation
 - C. By increasing the risk of injury
 - D. By slowing blood flow to muscles
12. How are athletes typically assessed for classification in disability sports?
 - A. Through a comprehensive evaluation of their physical, visual, or intellectual impairments
 - B. Based on their country's classification guidelines
 - C. Based only on their previous experience
 - D. By their personal coaches
13. In which sport is visual impairment a primary classification criterion?
 - A. Wheelchair basketball
 - B. Para-swimming
 - C. Goalball
 - D. Wheelchair tennis
14. Factors that must be considered in order to prevent foot injuries include:
 - A. Proper footwear
 - B. Adapting to training surfaces
 - C. Correcting biomechanical deficiencies
 - D. All of the above
15. A positive Thomas Test indicates tightness in which muscle group?
 - A. Hip adductors
 - B. Hip extensors
 - C. Hip internal rotators
 - D. Hip flexors

16. 17-year-old male student presents for a pre-sports physical examination. When taking his history, you discover that his uncle and older brother both died suddenly while playing sports. The patient has a holosystolic murmur at the apex of the heart that radiates to the axilla. Which of the following is the most likely cause?
- A. Left ventricular hypertrophy
 - B. Aortic stenosis
 - C. Brain aneurysm
 - D. Hypertrophic cardiomyopathy
17. Unconsciousness, disorientation and memory loss following a blow to the head are symptoms of:
- A. cramp.
 - B. cardiac arrest.
 - C. coordination problems.
 - D. concussion.
18. Which of the following findings helps to distinguish between stress fractures of the tibia and shin splints?
- A. With shin splints, a bone scan shows the posterior tibial cortex in a diffuse, longitudinal orientation.
 - B. With tibial shin splints, the bone scan is more intense.
 - C. A more diffuse area of tenderness is seen in tibial stress fractures.
 - D. A three-phase bone scan is positive in all phases with shin splints, but only positive in delayed
19. Closed chain kinetic exercises are differentiated from open chain exercises by which of the following?
- A. Increased joint shear
 - B. Maximally rehabilitate individual muscles
 - C. Achieve normal motion in all the joints of the kinetic chain
 - D. The compressive nature of applied loads
20. Endurance training stimulates which of the following physiologic adaptations in the athlete?
- A. Selective hypertrophy of type II muscle fibers
 - B. Decreased concentration of Krebs cycle enzymes
 - C. Increased rate of glycogen depletion
 - D. Increased storage and utilization of intramuscular lipids
21. Shin splints are caused by:
- A. Tiny fractures
 - B. Torn ligaments
 - C. Inflammation
 - D. All of the above
22. What's the most common runner's injury?
- A. Shin splints
 - B. Runner's knee
 - C. Achilles tendinitis
 - D. Plantar fasciitis

23. What is R.I.C.E. treatment?
- A. Rest, Ice, Crutches, Elevation
 - B. Rest, Ice, Compression, Elevation
 - C. Rest, Ibuprofen, Crutches, Exercise
 - D. Reinforcement, Immobilization, Cryotherapy, Electrostimulation
24. What do golfers and weightlifters injure most often?
- A. The knee
 - B. The hips
 - C. The lower back
 - D. The elbow
25. What's the best time to stretch your muscles?
- A. After warming up
 - B. During exercise
 - C. After exercise
 - D. None of the above
26. What is most often injured in downhill skiing?
- A. The head
 - B. The knee
 - C. The ankle
 - D. The wrist
27. When blood collects at the site of an injury and discolors the skin, it is called...
- A. Concussion
 - B. Infection
 - C. Contusion
 - D. Rash
28. Which injury is characterized by soreness and slight swelling of the front, inside, and back of the lower leg and by a sharp pain that develops while exercising and gradually intensifies?
- A. Tendinitis
 - B. Shin Splints
 - C. Fracture
 - D. Compartment Syndrome
29. What is the name of the injury commonly known as Tennis Elbow?
- A. Medial Epicondylitis
 - B. Elbow sprain
 - C. Lateral Epicondylitis
 - D. Elbow Strain
30. Which ligament is the most frequently injured in the setting of a low ankle sprain?
- A. Anterior talofibular ligament (ATFL)
 - B. Posterior cruciate ligament (PCL)
 - C. Medial collateral ligament (MCL)
 - D. Calcaneofibular ligament (CFL)

SECTION B –SHORT ANSWER QUESTIONS (20 MARKS) Answer all questions.

31. The use of ice baths and cryotherapy can aid recovery. Analyse which of these methods you think is the most effective and give reasons why. (4 Marks)
32. How are skill and physical tests used to indicate an athlete's readiness to return to play after injury. (4 Marks)
33. Describe the classification of sports injuries according to the damaged tissue (4 Marks)
34. Explain the physical preparation needed by an athlete in order to prevent injury.(4 Marks)
35. Describe the different types of stretching that could be used and how to complete them safely (4 Marks)

SECTION C –LONG ANSWER QUESTIONS (20 MARKS) Choose one question

36. You are playing a friendly soccer game with friends when one of them steps awkwardly on the playing surface. He sustained an ankle injury,deltoid tendon. Recall all the steps you would take to EXAMINE and ASSESS this injury.
Discuss the TOTAPS procedure by describing the action taken. (20Marks)

T_____:

O_____:

T_____:

A_____:

P_____:

S_____:

37. DISCUSS the treatment of the following: (20Marks)
 - a) Sprain
 - b) Strain
 - c) Dislocation
 - d) Abrasions.