



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF TRIMESTER EXAMINATIONS MAY TO AUGUST 2026

UNIT CODE: PHT 134

UNIT NAME: Physiotherapy Principles and Procedure (Main exam)

DATE: 7TH AUGUST 2026

TIME: 2 Hours START: 11:00AM FINISH 1:00PM

INSTRUCTIONS

1. All students will have two (2) hours to complete the examination
2. This is an online exam, Attempt all questions as per the instruction
3. It is the student's responsibility to report any page and number missing in this paper.
4. Check that the paper is complete
5. Total number of pages is 6 including the cover.
6. Read through the paper quickly before you start.

Multiple choice questions. Answer all the questions (30 Marks)

1. Which of the following best describes the primary purpose of patient handling in physiotherapy?
 - A. To facilitate safe patient movement while minimizing the risk of injury to both the patient and the therapist.
 - B. To maximize patient independence by avoiding therapist assistance whenever possible.
 - C. To improve patient comfort and reduce pain during positioning and transfers.
 - D. To enhance the efficiency of patient transfers and reduce the time required for treatment sessions
2. During patient transfer, the therapist should first:
 - A. Begin the transfer immediately to minimize patient anxiety.
 - B. Ask another patient to help with the transfer if the patient appears heavy.
 - C. Pull the patient quickly to complete the transfer before fatigue develop.
 - D. Assess the patient's ability and safety.
3. Which sequence best reflects sound clinical reasoning during patient handling?
 - A. Assessment → Planning → Safe Intervention → Documentation
 - B. Treatment → Assessment → Documentation → Exercise → Safe Intervention
 - C. Documentation → Treatment → Assessment → Planning
 - D. Exercise → Diagnosis → History → Treatment
4. Which of the following is an objective assessment technique performed during a physiotherapy examination?
 - A. Collection of the patient's history of the present condition
 - B. Inspection of posture and movement
 - C. Review of the patient's past medical and surgical history
 - D. Assessment of the patient's social and occupational history
5. A 72-year-old patient has been confined to bed for two weeks following a hip fracture surgery. Which intervention is MOST appropriate for preventing complications associated with prolonged immobility?
 - A. Encouraging complete bed rest until the fracture has fully healed
 - B. Regular repositioning, passive range of motion exercises, and skin integrity monitoring
 - C. Restricting limb movement to minimize discomfort and fatigue
 - D. Avoiding physical contact with the patient except during medication administration

6. A physiotherapist performs Manual Muscle Testing during a patient assessment. Which impairment is being evaluated?
- A. Limitation in joint range of motion
 - B. Reduced muscle strength due to impaired force production
 - C. Decreased muscle extensibility resulting in tightness
 - D. Impaired static and dynamic balance
7. Which practice best promotes patient dignity during physiotherapy assessment and treatment?
- A. Ensuring all treatment sessions are conducted in an open clinical area
 - B. Performing the assessment after obtaining patient consent
 - C. Providing adequate draping and exposing only the body part being examined or treated
 - D. Asking accompanying relatives to answer questions on behalf of the patient
8. During a physiotherapy intervention involving a postoperative wound, which outcome is the primary reason for adhering to aseptic technique?
- A. Preventing microbial contamination of the wound and reducing healthcare-associated infections.
 - B. Improving patient confidence in the physiotherapist's clinical skills.
 - C. Increasing the efficiency of wound assessment and dressing changes.
 - D. Enhancing the effectiveness of the rehabilitation programme.
9. Which instrument is commonly used to measure joint angles?
- A. Stethoscope
 - B. Thermometer
 - C. Goniometer
 - D. Reflex hammer
10. Which of the following is classified as a vital sign during a routine physiotherapy assessment?
- A. Pulse rate
 - B. Peak expiratory flow rate
 - C. Body mass index
 - D. Pain intensity (Visual Analogue Scale)
11. Which anatomical tissues are the primary focus of soft tissue mobilization techniques in physiotherapy?
- A. Bones and joint capsules
 - B. Muscles, fascia, tendons, and connective tissues
 - C. Ligaments and articular cartilage only
 - D. Internal organs and visceral tissues
12. Which of the following best explains why a physiotherapist obtains the History of Present Condition?
- A. To identify risk factors from the patient's family history
 - B. To evaluate the patient's previous medical and surgical illnesses

- C. To determine the patient's lifestyle and occupational demands
 - D. To establish the characteristics and progression of the patient's current condition to guide clinical assessment and treatment planning
13. A patient present with shoulder pain following a sports injury. What is the primary purpose of palpation during the physiotherapy examination?
- A. To determine the degree of muscle strength loss
 - B. To assess tissue characteristics by touch
 - C. To measure shoulder joint angles accurately
 - D. To assess the patient's cardiovascular fitness before treatment
14. Why is maintaining patient confidentiality an essential professional responsibility for a physiotherapist?
- A. To ensure accurate documentation of treatment sessions
 - B. To improve communication among healthcare professionals regardless of patient consent
 - C. To protect patient privacy, maintain trust, and uphold professional and ethical standards
 - D. To reduce the time required for patient assessment and treatment
15. Passive Range of Motion exercises are performed when:
- A. The patient performs all movements independently.
 - B. The therapist moves the patient's joint without active muscle contraction.
 - C. The patient resists movement.
 - D. The therapist moves the patient's joint with active muscle contraction.
16. While assisting a patient from a bed to a wheelchair, a physiotherapist bends the knees, keeps the back straight, maintains a wide base of support, and holds the patient close to the body. Which principle is the therapist demonstrating?
- A. Proper patient positioning
 - B. Passive range of motion techniques
 - C. Correct body mechanics
 - D. Therapeutic exercise for strengthening the lower limbs
17. Massage may produce which physiological effect?
- A. Reduced circulation
 - B. Bone shortening
 - C. Reduce blood pressure
 - D. Improved blood flow
18. During gait training, a physiotherapist provides clear verbal instructions such as "*look forward,*" "*take equal-length steps,*" and "*place the walking aid before stepping.*" What is the PRIMARY purpose of using these verbal cues?
- A. To test the patient's ability to follow complex instructions.
 - B. To enhance patient understanding, improve gait performance, and promote safe ambulation.

- C. To reduce the duration of the treatment session by minimizing therapist involvement.
 - D. To evaluate the patient's level of intelligence and communication skills.
19. Why is patient positioning important?
- A. It improves comfort and prevents complications.
 - B. It decreases pain.
 - C. It prevents documentation.
 - D. It eliminates the need for exercise.
20. Goniometry is primarily used to assess which of the following?
- A. Muscle strength during voluntary contraction
 - B. Sensory function and peripheral nerve integrity
 - C. Muscle strength during passive contraction
 - D. Joint range of motion
21. A patient is unable to stand independently. Which transfer technique is most appropriate?
- A. Assisted transfer
 - B. Independent transfer without supervision
 - C. Running transfer to increase the patient's confidence
 - D. Jump transfer to minimize the time spent transferring
22. A physiotherapist notices redness over a patient's heel during positioning. The most appropriate action is to:
- A. Gently massage the reddened area to stimulate blood circulation
 - B. Reposition the patient to relieve pressure.
 - C. Continue treatment without changes.
 - D. Apply vigorous massage over the heel to restore tissue perfusion
23. A patient recovering from a lower limb fracture has been prescribed partial weight-bearing ambulation. When selecting an appropriate assistive device for gait training, which factor should the physiotherapist consider FIRST?
- A. The patient's personal preference for a particular assistive device
 - B. The therapist's familiarity and comfort with using the device
 - C. The patient's weight-bearing status, balance, upper limb strength, and functional mobility
 - D. The availability of the assistive device in the physiotherapy department
24. During a passive range of motion assessment of the knee, a patient suddenly complains of sharp pain before the joint reaches its expected range of motion. What is the MOST appropriate action for the physiotherapist?
- A. Continue the movement gently until the full range is achieved.
 - B. Encourage the patient to tolerate the pain because discomfort is expected during passive movement
 - C. Increase the speed of the movement to overcome muscle guarding.

- D. Stop the movement immediately, assess the cause of the pain, and modify the examination or treatment as appropriate.
25. During a Manual Muscle Testing (MMT) examination of the quadriceps muscle, the physiotherapist ensures that the patient is positioned according to standardized testing procedures before applying resistance. Why is consistent patient positioning essential during MMT?
- A. To make the assessment more comfortable for the physiotherapist
 - B. To reduce the amount of documentation required after the examination
 - C. To ensure accurate, valid, and reproducible measurements of muscle strength
 - D. To eliminate the need for the patient's active participation during testing
26. During a physiotherapy assessment, a patient presents with limited active and passive movement of the shoulder, but manual muscle testing reveals normal muscle strength. Which assessment should the physiotherapist prioritize to quantify the extent of the movement limitation accurately?
- A. Measuring the patient's blood pressure to rule out cardiovascular causes
 - B. Measuring the shoulder joint's range of motion using a goniometer
 - C. Assessing the patient's body temperature for signs of infection
 - D. Performing a visual acuity assessment to identify neurological deficits
27. While assisting a patient from the bed to a wheelchair, the patient suddenly reports dizziness and begins to lose balance. What should the physiotherapist do FIRST?
- A. Support the patient safely, assist them back to a stable position, and reassess their condition before proceeding.
 - B. Complete the transfer quickly to avoid delaying treatment.
 - C. Encourage the patient to continue walking to overcome the dizziness.
 - D. Ignore the complaint because transient dizziness is common during transfers.
28. During the transfer of a patient from a bed to a wheelchair, which action by the physiotherapist demonstrates poor body mechanics and increases the risk of musculoskeletal injury?
- A. Keeping the patient close to the therapist's center of gravity throughout the transfer
 - B. Flexing the hips and knees while maintaining a stable base of support
 - C. Positioning the feet shoulder-width apart before initiating the transfer
 - D. Twisting the trunk while lifting and turning the patient without moving the feet
29. Which of the following is a component of the subjective physiotherapy examination?
- A. Assessment of joint range of motion using a goniometer
 - B. Evaluation of muscle strength through manual muscle testing
 - C. History of the Present Condition
 - D. Palpation of affected soft tissues and bony landmarks
30. A physiotherapist is developing a rehabilitation plan for a patient with impaired mobility following a stroke. Which factor should receive the highest priority when selecting appropriate interventions?
- A. The availability of sophisticated rehabilitation equipment

- B. The therapist's preferred treatment techniques and experience
- C. The patient's safety, functional goals, and current physical abilities
- D. The estimated time required to complete each treatment session

SECTION B Short structured question. Answer all (20 marks)

- 31. List the Manual Muscle Testing (MMT) grades and describe each.
- 32. Describe five measures used to preserve patient dignity.
- 33. Differentiate between physiological passive movements and accessory passive movements.
- 34. State five physiological effects of therapeutic massage.

SECTION C Long structured question. Answer one (20 marks)

- 35. a) Differentiate between Active Range of Motion (AROM) and Passive Range of Motion (PROM) (10 marks).
b) Explain five ethical principles guiding physiotherapy practice. (10 Marks)
- 36. a) Describe the components of a subjective physiotherapy assessment and explain the importance of each component in clinical decision-making (10 marks)
b) Discuss the role of physical examination in physiotherapy (10 Marks)