



**UNIVERSITI KUALA LUMPUR
ROYAL COLLEGE OF MEDICINE PERAK**

**FINAL EXAMINATION
MARCH 2026 SEMESTER**

COURSE CODE : RFB20903
COURSE NAME : PHYSIOTHERAPY IN MUSCULOSKELETAL SYSTEM 2
PROGRAMME NAME : BACHELOR OF PHYSIOTHERAPY (HONOURS)
DATE : 25 JUNE 2026
TIME : 9.00AM – 11.00AM
DURATION : 2 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please read CAREFULLY the instructions given in the question paper.
2. This question paper has information printed on both sides of the paper.
3. This question paper consists of TWO (2) sections; Section A and Section B.
4. Answer ALL questions in Section A and THREE (3) questions in Section B; Question 1 and Question 2 are COMPULSORY.
5. Please mark/write your answers on the OMR answer script and answer booklet provided.
6. Answer all questions in English language ONLY.

THERE ARE 10 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

I) MULTIPLE CHOICE QUESTIONS (20 marks)

INSTRUCTION: Answer ALL questions.

Please use the OMR sheet provided.

1. Select the structure affected in a sprain.
 - A. Nerve.
 - B. Muscle.
 - C. Tendon.
 - D. Ligament.
 - E. Fat tissue.
2. What is the main function of fibroblasts in proliferative phase?
 - A. Form clot.
 - B. Destroy bacteria.
 - C. Produce collagen.
 - D. Break down tissue.
 - E. Reduce blood flow.
3. Identify the main event in inflammatory phase.
 - A. Bone growth.
 - B. Vasoconstriction.
 - C. Scar remodelling.
 - D. Removal of debris.
 - E. Collagen formation.
4. What is the main outcome of maturation phase?
 - A. Clot formation.
 - B. Tissue necrosis.
 - C. Increased swelling.
 - D. Platelet aggregation.
 - E. Collagen realignment.

5. Select the condition associated with finger locking during movement.
- A. Trigger finger.
 - B. Tennis elbow.
 - C. Shoulder dislocation.
 - D. Carpal Tunnel Syndrome (CTS).
 - E. Superior Labrum Anterior to Posterior (SLAP) injury.
6. Identify the activity related to trigger finger development.
- A. Swimming.
 - B. Stair climbing.
 - C. Cycling slowly.
 - D. Running uphill.
 - E. Repetitive gripping.
7. Select the mechanism that contributes to CTS.
- A. Fracture of humerus.
 - B. Weak calf contraction.
 - C. Patellar displacement.
 - D. Stretching of quadriceps.
 - E. Compression of median nerve.
8. Find the clinical feature commonly associated with tennis elbow.
- A. Toe deformity.
 - B. Shoulder instability.
 - C. Shoulder numbness.
 - D. Pain during wrist flexion.
 - E. Pain during wrist extension.
9. How does repetitive overhead activity cause rotator cuff injury?
- A. Weak toe flexors.
 - B. Reduced wrist stability.
 - C. Increased ankle mobility.
 - D. Excessive knee extension.
 - E. Tendon overuse and degeneration.

10. What is the structure connecting femur to tibia?
- A. Nerve.
 - B. Muscle.
 - C. Tendon.
 - D. Cartilage.
 - E. Ligament.
11. Select the ligament that prevents posterior displacement of tibia.
- A. Lateral Collateral Ligament.
 - B. Medial Collateral Ligament.
 - C. Anterior Cruciate Ligament.
 - D. Posterior Cruciate Ligament.
 - E. Anterior Talofibular Ligament.
12. Which ligament is commonly injured in an ankle sprain?
- A. Achilles Tendon.
 - B. Calcaneofibular Ligament.
 - C. Posterior Cruciate Ligament.
 - D. Anterior Talofibular Ligament.
 - E. Posterior Talofibular Ligament.
13. Why does the medial meniscus is more prone to injury compared to the lateral meniscus?
- A. Less mobile.
 - B. Smaller size.
 - C. More mobile.
 - D. Less attached.
 - E. Poor blood supply.
14. Which mechanism commonly causes a lateral ankle sprain?
- A. Hip rotation
 - B. Knee flexion.
 - C. Toe extension.
 - D. Foot rolling inward.
 - E. Foot rolling outward.

15. Identify grade 3 interpretation in Load and Shift Test.
- A Pain occurs without instability.
 - B Posterior apprehension is reproduced.
 - C Humeral head overrides the rim and remains dislocated.
 - D Humeral head rides over the rim but spontaneously reduces.
 - E Humeral head translates less than 25% over the glenoid rim.
16. **“X causes relief of pain and apprehension during further external rotation after applying a posterior directed force to the humeral head.”**
Find X.
- A Clunk Test.
 - B Sulcus Sign.
 - C Fowler Sign.
 - D Drop Arm Test.
 - E Yergason's Test.
17. Which statement explain Lateral Rotation Lag Sign?
- A. It is synonymous with Cozen's Test.
 - B. It specifically identifies medial instability.
 - C. It is performed with the elbow fully extended.
 - D. It primarily assesses the integrity of the biceps tendon.
 - E. It is positive when the patient cannot maintain external rotation.
18. **“Y causes pain or tendon subluxation from the groove when therapist resists forearm supination while the patient externally rotates the shoulder.”**
Identify Y.
- A. Mill's Test.
 - B. Phalen's Test.
 - C. Finkelstein Test.
 - D. Yergason's Test.
 - E. Anterior Drawer Test.

19. Identify special test for de Quervain's disease.

- A Cozen's Test.
- B Phalen's Test.
- C Finkelstein Test.
- D Varus Instability Test.
- E Posterior Apprehension Test.

20. Select the indication for Fulcrum test.

- A Medial epicondylitis.
- B Scapular dyskinesia.
- C Rotator cuff impingement.
- D Acromioclavicular pathology.
- E Traumatic anterior instability.

II) SHORT ANSWER QUESTIONS (20 marks)**INSTRUCTION: Answer ALL questions in the answer booklet provided.****Each question carries FOUR (4) marks.**

1. List symptoms of strain.
2. Explain **TWO (2)** events that occur during the inflammatory phase of soft tissue healing.
3. State the sign and symptoms of SLAP injury.
4. Explain **TWO (2)** functions of meniscus in the knee joint.
5. List tests for thoracic outlet syndrome.

SECTION B: MODIFIED ESSAY QUESTIONS (Total: 60 marks)**INSTRUCTION: This section consists of FOUR (4) questions.****Answer THREE (3) questions in the answer booklet provided.****Question 1 and Question 2 are COMPULSORY.****Question 1**

A male 30-year-old basketball player landed awkwardly after attempting a rebound during a match 2 days ago. Upon landing, his right foot rolled inward while the body weight shifted laterally. He immediately felt sharp pain at the outer side of the ankle followed by swelling within a few hours. The patient complained of difficulty walking and tenderness around the lateral ankle. Observation revealed moderate swelling and bruising over the lateral ankle region with reduced ankle range of motion.

With reference to the above case, answer all the following questions.

- (a) Identify the possible diagnosis and grade of injury for him.
(2 marks)
- (b) Justify the answer in (a).
(6 marks)
- (c) Determine the phase of healing process that currently experienced by the patient.
(2 marks)
- (d) Explain the physiological changes that happen in phase (c).
(10 marks)

Question 2

Mr. N, a 28-year-old badminton player complains of pain over the right shoulder after performing repeated overhead smashes during training. He reports difficulty lifting the arm sideways and weakness when reaching overhead. Clinical examination shows painful shoulder abduction and tenderness around the supraspinatus tendon.

- (a) Identify possible diagnosis and its justification. (5 marks)
- (b) Discuss **THREE (3)** possible mechanism of injury may contribute to this injury. (6 marks)
- (c) Describe **THREE (3)** physiotherapy assessments for him. (9 marks)

Question 3

(a) Describe procedure for lateral scapular slide test. (10 marks)

(b) Differentiate FIVE (5) elbow valgus and varus test. (10 marks)

Feature	Elbow Varus Stress Test	Elbow Valgus Stress Test
Ligament Assessed		
Direction of Force		
Forearm Movement		
Area of Pain/Laxity		
Main Clinical Purpose		

Question 4

A 52-year-old male factory worker complains of persistent pain at the bottom of his left heel for the past 8 months. The pain gradually worsens after prolonged standing and walking at work. He reports stiffness during the first steps in the morning and discomfort after prolonged activity. The patient is overweight and usually wears hard-soled shoes at work. Observation shows reduced weight bearing on the affected side and tightness of the calf muscles.

With reference to the above case, answer all the following questions.

- (a) Identify the possible diagnosis for him. (1 marks)
- (b) Explain the pathophysiology based on the answer in (a). (7 marks)
- (c) State **FOUR (4)** physiotherapy goals for this patient. (4 marks)
- (d) Describe **FOUR (4)** physiotherapy intervention suitable for this patient. (8 marks)

END OF EXAMINATION PAPER