



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2023/2024 ACADEMIC YEAR

THIRD YEAR, FRIST TRIMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN PHYSIOTHERAPY

COURSE CODE: HPT 319

COURSE TITLE: ORTHOPEDIC AND TRAUMATOLOGY II

DATE:- FRIDAY 8TH DEC 2023

TIME: 8:00-10:00 AM

INSTRUCTIONS TO CANDIDATES

Answer all Questions

Sec A: Multiple Choice Questions (MCQ) 20 Marks

Sec B: Short Answer Questions (SAQ) (40 Marks)

Sec C: Long Answer Questions (LAQ) (40 Marks)

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

SECTION A: MULTIPLE CHOICE QUESTIONS

20 MARKS

1. Commonest site of disc prolapse is
 - A. C5-C6
 - B. T8-T9
 - C. L4-L5
 - D. L5-S1
2. The following is true of spondylolisthesis
 - A. Slipping of S1 over L5
 - B. Posterior arch defect
 - C. Congenital defect
 - D. More in pregnancy
3. Which imaging technique is commonly used to diagnose osteoarthritis?
 - A. Magnetic resonance imaging (MRI)
 - B. Computed tomography (CT) scan
 - C. X-ray
 - D. Ultrasound
4. The primary goal of treatment for osteoarthritis is:
 - A. Curing the disease
 - B. Managing pain and improving joint function
 - C. Preventing future joint damage
 - D. Strengthening the immune system
5. What is the main symptom of ankylosing spondylitis?
 - A. Fatigue
 - B. Joint pain
 - C. Back pain and stiffness
 - D. Headaches
6. Which joint is commonly affected in ankylosing spondylitis?
 - A. Knee joint
 - B. Hip joint
 - C. Shoulder joint
 - D. Temporomandibular joint
7. Spondylolisthesis is a condition that primarily affects which part of the body?
 - A. Knee
 - B. Shoulder
 - C. Spine
 - D. Hip
8. Which of the following is NOT a common symptom of disc prolapse?
 - A. Back pain
 - B. Loss of bladder control
 - C. Numbness or tingling in the limbs
 - D. Muscle spasms
9. Which lifestyle modification can help prevent disc prolapse?
 - A. Regular exercise
 - B. Maintaining a healthy weight

- C. Using proper lifting techniques
 - D. All of the above
10. Which of the following statements about intravertebral disc prolapse is true?
- A. It is always caused by trauma
 - B. It is a degenerative condition
 - C. It affects only the cervical spine
 - D. It can be cured with medication
11. The term "foraminal stenosis" refers to the narrowing of:
- A. Spinal canal
 - B. Vertebral bodies
 - C. Intervertebral discs
 - D. Nerve root canals
12. Which of the following is a potential complication of untreated spinal stenosis?
- A. Paralysis
 - B. Chronic pain
 - C. Urinary incontinence
 - D. All of the above
13. In lumbar spinal stenosis, which position often relieves symptoms?
- A. Standing
 - B. Sitting
 - C. Lying down
 - D. Bending forward
14. How long does the typical rehabilitation period last after arthroplasty?
- A. 1-2 weeks
 - B. 4-6 weeks
 - C. 3-6 months
 - D. 1 year or more
15. Which of the following is an example of an isometric exercise for the shoulder after arthroplasty?
- A. Biceps curls
 - B. Shoulder shrugs
 - C. Wall push-ups
 - D. Triceps kickbacks
16. Weight-bearing exercises are usually initiated after arthroplasty based on:
- A. Surgeon's preference
 - B. Patient's pain tolerance
 - C. Duration of hospital stay
 - D. X-ray confirmation of healing
17. Which of the following exercises should be included in the rehabilitation program after hip arthroplasty to improve hip extension strength?
- A. Bridging exercises
 - B. Side-lying leg lifts
 - C. Seated leg press
 - D. Standing lunges

18. Which of the following is a potential risk associated with high-impact activities after arthroplasty?
 - A. Implant loosening
 - B. Joint dislocation
 - C. Fracture around the implant
 - D. All of the above
19. What is the primary aim of pre-operative physiotherapy in arthroplasty patients?
 - A. Pain reduction
 - B. Muscle strengthening
 - C. Range of motion improvement
 - D. Preparing the patient for surgery
20. Which of the following exercises should be included in the early post-operative phase after arthroplasty?
 - A. Active range of motion exercises
 - B. Strengthening exercises
 - C. Plyometric exercises
 - D. Resistance training

SECTION B: SHORT ANSWER QUESTIONS

40 MARKS

1. Discuss the isthmic spondylolisthesis 5 marks
2. Explain the signs and symptoms that a suspected patient with spondylosis will present with 5 marks
3. Explain the sources of pain in osteoarthritis patients 5 marks
4. Discuss the physical examination findings of a patient with lumbar canal stenosis 5 marks
5. Explain the indications of total knee replacement 5 marks
6. There are many joint protective mechanisms. Discuss 5 marks
7. Mercy suspects that her patient has acute disc prolapse. What clinical features does she expect as she begins to do the assessment 5 marks
8. There are absolute contraindications to arthroplasty to be considered during pre-surgery assessments 5 marks

SECTION C: LONG ANSWER QUESTIONS

40 MARKS

1. Discuss in details the mobility measurements in ankylosing spondylitis patient 20 marks
2. Discuss the clinical correlations behind the total hip replacement precautions and post-operative rehab program