



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

**MAIN CAMPUS
UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**THIRD YEAR, FIRST TRIMESTER EXAMINATIONS
FOR THE DEGREE
OF**

BACHELOR OF SCIENCE IN PHYSIOTHERAPY

COURSE CODE: BSP 237/HPT 239

COURSE TITLE: ORTHOPEDIC AND TRAUMATOLOGY II

DATE: MONDAY 25TH APRIL 2022 TIME: 8:00-11:00 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: 3 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. All of the following are clinical manifestations of RA except one, which one?
 - a. Intra-articular manifestations
 - b. Pain on motion
 - c. Swelling
 - d. Limitation of motion
2. Which of the following joint(s) is/are rarely involved in pathogenesis of ankylosis spondylitis
 - a. Shoulder joint
 - b. Costovertebral joints
 - c. Sacroiliac joints
 - d. Intervertebral joint
3. All of the following are characteristic features of ankylosis spondylitis except one
 - a. Active fibrosis
 - b. Ossification
 - c. Calcification
 - d. Mineralization
4. All of the following are musculoskeletal hand deformities features of SLE except one
 - a. Ulnar deviation
 - b. Swan neck deformity
 - c. Thumb interphalangeal joint subluxation
 - d. Knee joint dislocation
5. All of the following are symptoms of bulbar poliomyelitis except one
 - a. Dyspnea
 - b. Restlessness and confusion
 - c. Dysphagia
 - d. Myalgia
6. All of the following are cardiac features in mixed connective disorder except one
 - a. Exertional dyspnea
 - b. Alveolar hemorrhage
 - c. Right ventricular hypertrophy
 - d. Pulmonary artery dilation
7. The following are features of neurogenic type of thoracic outlet syndrome except one
 - a. Unilateral muscle weakness
 - b. Slowly progressive
 - c. Muscle atrophy
 - d. Ischemia of the hand muscles
8. Which of the following is not part of the interscalene triangle that is commonly involved in thoracic outlet syndrome
 - a. 1st rib on the inferior border
 - b. Scaleneus anterior on the anterior border
 - c. Scaleneus posterior on the posterior border
 - d. Scaleneus medius on the medial border
9. Which of the following is not a possible cause of piriformis syndrome
 - a. Spasms of the piriformis

- b. Weak gluteals
 - c. Compression of sciatic nerve at L1L2
 - d. Sitting on thick wallet for long periods of time
10. Which part of the spine below has the largest avascular IVD in the body
- a. C3-C4
 - b. C7-C8
 - c. L4-L5
 - d. S3-S4
11. Which one of the following is not a function of the intervertebral disc
- a. Restrict intervertebral joint motion
 - b. Contribution to stability
 - c. Increases axial and rotational movement
 - d. Preservation of anatomical relationship
12. Which one of the following sections bulges out during spinal disc herniation
- a. Nucleus pulposus
 - b. Annulus fibrosus
 - c. Anterior ligament
 - d. Posterior ligament
13. All of the following are pathological causes of acquired lumbar canal stenosis except one
- a. Scoliosis
 - b. Post trauma
 - c. Spondylitis
 - d. Degenerative
14. All of the following are causes of spondylosis except one
- a. Aging
 - b. Repetitive strain injury (RSI)
 - c. Alcohol
 - d. Smoking
15. Isthmic spondylolisthesis has the highest biomechanical force on spars at
- a. L2-L3
 - b. L3-L4
 - c. L4-L5
 - d. L5-S1
16. All of the following are features confirms Phalen-Dixon Sign, which one is not
- a. Hyperlordotic lumbar spine
 - b. Waddling gait
 - c. Tight hamstrings
 - d. Tight gluteal maximus
17. All of the following are the conservative active physiotherapy intervention in spondylolisthesis except one
- a. Extension exercises
 - b. Abdominal strengthening exercises
 - c. Hamstring stretching exercises
 - d. Flexion exercises

18. All of the following are indications of arthroplasty except one
- Severe OA of the hip joint
 - Un-united mid femoral fracture
 - Avascular necrosis
 - Advanced RA with disabling joint
19. Cemented hip arthroplasty is mainly indicated for
- Children between 10-15 years
 - Elderly with life expectancy of 10-15 years
 - Young people between 25-35 years
 - Teenagers
20. All of the following are performed by the physiotherapist in day 2-3 post-operative following TKR, which one is not
- Standing and ambulation with hinged knee stabilizer
 - Hamstring strengthening exercise
 - Assisted SLR
 - Gentle patellar mobilization

SECTION B: SHORT ANSWER QUESTIONS 40 MARKS

- Discuss the physiotherapy treatment of symptomatic disc herniation 5 marks
- Nimrod is diagnosed with lumbar canal stenosis and is referred to you for management. What clinical feature will expect to find out during the assessment 5 marks
- Briefly discuss the absolute contraindications to arthroplasty 5 marks
- You are tasked to prepare a patient before he goes for theatre for total hip arthroplasty. Discuss. 5 marks
- Discuss the preoperative training you will conduct with a Total Knee replacement (TKR) patient 5 marks
- Discuss the radiographic classification of osteoarthritis 5 Marks
- You suspect a patient has spinal paralytic poliomyelitis. Discuss the presenting features to confirm 5 marks
- While in outpatient department of physiotherapy you meet a client whom you suspect has Piriformis syndrome based on the presenting signs and symptoms. Briefly EXPLAIN the presenting signs and symptoms 5 marks

SECTION C: LONG ANSWER QUESTIONS 40 MARKS

- You suspect a patient has acute spinal disc herniation.
 - Discuss the causes in detail 10 marks
 - What clinical features will a patient with acute disc prolapse present with, give details 10 marks
- You witness a total hip arthroplasty procedure of a 65 year old Nassir in the theater. The orthopedic surgeon assigns you to take care of Nassir immediately she comes out of theatre. Discuss your progressive daily management highlighting all the precautions applicable 20 marks