



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY**

**(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**2021/2022 ACADEMIC YEAR**

**SECOND YEAR, FIRST TRIMESTER EXAMINATIONS**

**FOR THE DEGREE**

**OF**

**BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

**COURSE CODE: HPT 125**

**COURSE TITLE: APPLIED CLINICAL SCIENCE IN  
PHYSIOTHERAPY**

**DATE: MONDAY 25<sup>TH</sup> APRIL 2022**

**TIME : 2:00-5:00 PM**

**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 5 Printed Pages. Please Turn Over.

### SECTION A: MULTIPLE CHOICE QUESTIONS (20 Marks)

1. Loud and harsh with a midrange pitch breath sounds are?
  - a) Broncho vesicular.
  - b) Bronchial
  - c) Racheal
  - d) Vesicular
2. Rales most commonly suggest?
  - a) Secretions in large airways.
  - b) Abnormal lung tissue.
  - c) Airless lung areas.
  - d) Narrowed airways.
3. While assessing a patient with a respiratory condition in the ward you realize that there is hyper resonant on percussion. Which one of the following conditions is the patient likely to be suffering from?
  - a) Atelectasis
  - b) Emphysema
  - c) Bronchiectasis
  - d) Pneumothorax
4. One of the following is considered as a special burn area requiring special treatment
  - a) Leg
  - b) Hand
  - c) Gluteus
  - d) Thigh
5. Which of the following is an exercise tolerance test?
  - a) Shuttle test
  - b) 6 minutes' test
  - c) Treadmill
  - d) All
6. Which of the following BEST describes pain emanating from the meniscus?
  - a) Pain that increases on weight-bearing activities
  - b) Pain of any excessive movement of the joint
  - c) History of locking with inability to actively or passively release itself from the position
  - d) Pain and stiffness that arise after unaccustomed periods of inactivity
7. Which of the following are reversible risk factors of CVD?
  - a) Physical activity level, family history.

- b) Age, daily consumption of fruits and vegetables.
  - c) Gender, excessive alcohol consumption.
  - d) Smoking, hypertension, stress.
8. The newly admitted client has burns on both legs. The burned areas appear brown and leather-like. He or she has little pain. How should this injury be categorized?
- a) Superficial
  - b) Partial-thickness superficial
  - c) Partial-thickness deep
  - d) Full thickness
9. Decerebrate rigidity is associated with?
- a) Parkinsonism
  - b) Epilepsy
  - c) Brainstem lesions
  - d) Stroke
10. In Functional Balance grade, a patient who is able to maintain balance without handhold support with limited postural sway while static is graded as:
- a) Normal
  - b) Good
  - c) Fair
  - d) Poor
11. Dymetria is?
- a) Impaired alternating movements
  - b) Unable to judge distance
  - c) Dancing movements
  - d) Intense movements
12. A patient with peripheral nerve injury is examined by a physical therapist. The patient's primary symptom results from injury of the deep peroneal nerve. The most likely areas of sensory alteration is?
- a) Sole of the foot
  - b) Planter surface of the toes
  - c) Lateral aspect of the leg and dorsum of the foot
  - d) Triangular area between the foot and the second toes
13. Excessive sweating is known as Diaphoresis. It indicates?
- a) Reduced cardiac volume
  - b) Reduced cardiac output
  - c) Increased cardiac volume
  - d) Increased cardiac output

14. Extension of the neck if an infant is held in ventral suspension is which reflex?
- a) Placing reaction
  - b) Symmetrical tonic neck reflex
  - c) Labyrinthine righting
  - d) Landau's reaction
15. A child who is able to use scissors and dresses self except buttons and begins to skip should be:
- a) 3 years
  - b) 4 years
  - c) 5 years
  - d) 6 Years
16. Which of the following is one of the key measurements to fit someone for a wheelchair?
- a) Seat width
  - b) Seat height
  - c) Leg depth
  - d) All of the above
17. In transfer training, there are levels of assistance for assisted transfers. For patients who can perform the activity without assistance but have a greater likelihood for needing physical assistance the level is?
- a) Stand-by
  - b) Contact guarding
  - c) Close guarding assistance
  - d) Minimal assistance
18. In assessment of the gait, which is the most appropriate tool is to use:
- a) Modified clinical test for of sensory interaction in balance
  - b) Functional reach test
  - c) Dynamic gait index score sheet
  - d) Finger to nose test
19. Which medical diagnosis would result with the patient being most susceptible to autonomic dysreflexia?
- a) T4 paraplegia
  - b) T12 paraplegia
  - c) Cauda equina injury
  - d) Posterior cord syndrome
20. The transplant of an organ or tissue from one individual to another of the same species with a different genotypes?

- a) Xenograft
- b) Allograft
- c) Autografts
- d) isografts

#### **SECTION B SHORT ANSWER QUESTIONS (40 MARKS)**

1. Define Guillan barre syndrome and briefly discuss its physiotherapy management.) (10 Marks)
2. Discuss the indication and contraindications of doing chest physiotherapy to a neonate in anew born unit (NBU) (10 Marks)
3. Mrs. Hassan is a patient who has been receiving treatment for right hip arthritis. She is scheduled to undergo a total hip replacement in next 10 days. Briefly describe the pre- and post-total hip replacement physiotherapy management. (10 Marks)
4. Describe the stages of healing and the physiotherapy intervention you will apply in every stage for a 30 years old male who has suffered a 2<sup>nd</sup> degree thermal burn of his right hand three days ago (10 marks)

#### **SECTION C -LONG ANSWER QUESTIONS (Answer all questions) (40 MARKS)**

1. Discuss burns under the following topics (20 Marks)
  - a) Types and causes of burns (10marks)
  - b) How you would use the FLACC tool to examine pain levels for a four years old child with 25% TBSA burn. (10marks)
2. There is an increase in Cases of cerebral palsy in Kenya. Discuss: (20 Marks)
  - a) Types of Cerebral palsy (10marks)
  - b) Physiotherapy treatment of cerebral palsy (10marks)