



(University of Choice)

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

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**2020/2021 ACADEMIC YEAR**

**FOURTH YEAR, SPECIAL/SUPPLEMENTARY EXAMINATIONS  
FOR THE DEGREE**

**OF**

**BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

**COURSE CODE: BSP 311**

**COURSE TITLE: GERONTOLOGY**

**DATE: MONDAY 8<sup>TH</sup> FEBRUARY 2021 TIME: 2:00PM – 5:00PM**

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**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. Some researchers think that \_\_\_\_\_ which are protective caps at the tail ends of chromosomes located in each cell, lose some of their length. When they become too short the cell cannot divide any longer and this could affect the longevity of the organism.
  - A. Collagen
  - B. Telomeres
  - C. Cross-links
  - D. Lipofusin
2. The far sightedness or difficulty focusing on close up objects that is experienced by many older adults is called?
  - A. Presbycusis
  - B. Macular degeneration
  - C. Glaucoma
  - D. Presbyopia
3. In designing a living environment for older adults which of the following would not be recommended?
  - A. Use of red and yellows whenever there is a need for colour coding
  - B. Use a high even level of illumination (lightening) in highways and stairways
  - C. Place grab bars on walls inside bathtubs, showers and toilets
  - D. For floor coverings use shiny tiles that reflect light
4. What is the hallmark of cell necrosis?
  - A. Loss of ion gradients
  - B. Cell DNA fragmentations
  - C. Cell atrophy
  - D. Decreased cell replication
5. Gains in life expectancy over the last 60 years in Kenya is primarily due to?
  - A. Increased exercise and physical activity
  - B. Genetic make up of the population
  - C. Reduced infant mortality and morbidity and maternal health care
  - D. Nutrition
6. Which of the following illustrate ageism?
  - A. Keeping one's age a secret
  - B. Seniors who forgo the social security money
  - C. Birthday card that joke about adding another year
  - D. All the above choices
7. Which of the following respiratory changes is increased with aging?
  - A. Lung compliance
  - B. Lung diffusion area
  - C. Mucocillary clearance
  - D. Immunity
8. Which of the following is associated with primary aging?
  - A. Presbycusis
  - B. Heart disease
  - C. Osteoporosis
  - D. Diabetes
9. Which of the following is not associated with the definition of frailty?
  - A. Co-morbid disease

- B. Dependency
  - C. Disability
  - D. Age <80
10. Participating in complex leisure and exercise activities \_\_\_\_\_?
    - A. Is associated with a higher level of intellectual functioning
    - B. Leads to fatigue
    - C. Has no relationship with level of intellectual functioning
    - D. Is guaranteed to prevent cognitive decline in older adulthood
  11. Erik Erikson's 7<sup>th</sup> Stage of development is \_\_\_\_\_?
    - A. Ego integrity versus despair
    - B. Intimacy versus isolation
    - C. Generativity versus stagnation
    - D. Identity versus role confusion
  12. Which of the following would be predicted by activity theory?
    - A. High activity; high life satisfaction
    - B. Low activity; high life satisfaction
    - C. High activity; Low life satisfaction
    - D. No relation between activity and life satisfaction
  13. Gerontologists define aging in terms of?
    - A. The number of years since the individual's birth
    - B. Changes in memory, learning, adaptive capacity, personality and mental functioning
    - C. Social roles, relationships and the overall context in which we grow old
    - D. All of the above
  14. Which of the following along with the femur is considered a fragility fracture?
    - A. Vertebrae
    - B. Humerus
    - C. Wrist
    - D. Ankle
  15. Which of the following is not seen in aging?
    - A. Decreased thermogenesis
    - B. Decreased ability to radiate heat
    - C. Reduced cold induced vasoconstriction
    - D. Reduced sweating
  16. Which of the following is increased in the peripheral nervous system after the 6 decade of life?
    - A. Sensory and motor
    - B. Conduction velocities
    - C. Synaptic connections
    - D. Skeletal muscle cells
  17. As few as 1/3<sup>rd</sup> of the elderly actually report symptoms. What is the most common pathway for most clinical problems in older persons, especially in those over the age of 75?
    - A. Loss of function
    - B. Atypical symptoms
    - C. Using more than 3 medications
    - D. Modified cultural beliefs
  18. Which of the following changes seen in the elderly is important as it increases the risk of falling?
    - A. Two-point discrimination
    - B. Proprioception
    - C. Stereognosis
    - D. Graphesthesia

19. Geriatric patients should be screened for falls by asking if there have been any falls within what time frame?
- A. Last month
  - B. Last 3 months
  - C. Last 6 months
  - D. Last year
20. What is the most common cause of dementia?
- A. Lewy body demetia
  - B. Alzheimer disease
  - C. Frontotemporal demetia
  - D. Vascular demetia
  - E. Toxic metabolic disorders

**SECTION B: SHORT ANSWER QUESTIONS**

**(40 Marks)**

1. Outline Maslow's hierarchy of needs and give examples pertaining to each category (8 Marks)
2. List 4 changes in the cardiac and the associated disease outcomes that may occur due to aging. (8 Marks)
3. Describe 4 types of incontinence and how they pertain to the elderly (8 Marks)
4. Discuss the exercise precautions related to Diabetes Mellitus (8 Marks)
5. Outline the geriatric physiotherapy role in the community (8 Marks)

**SECTION C: LONG ANSWER QUESTIONS**

**(40 Marks)**

- 1) Describe the unique aspects pertaining to a geriatric assessment (20 Mark)
- 2) Describe the physiological changes that will occur as a response to exercise in a geriatric client (20 Marks)