(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2018/2019 ACADEMIC YEAR

THIRD YEAR, FIRST TRIMESTER SPECIAL EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN PHYSIOTHERAPY

COURSE CODE: BSP 311

COURSE TITLE: GERONTOLOGY

DATE: Monday 23rd September 2019   **TIME:** 9:00 AM – 12:00 NOON

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.

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SECTION A: MULTIPLE CHOICE QUESTIONS   (20 marks)

1. A person classified as "old" is one who is? (1 mark)
   a) 75 – 85 years
   b) 60 – 75 years
   c) 85 + years
   d) 95 + years

2. Which of the following statements regarding Dementia is not true (1 mark)
   a) Dementia is overwhelming to caregivers
   b) Dementia has poor prognosis
   c) Dementia is a normal part of ageing
   d) Treatment should involve a holistic approach including patients and care givers

3. In Kenya a social fund for elderly persons above the age of 70 years has been set up through the Ministry of Labour and Social Protection. The amount paid per month is (1 mark)
   a) 2000 kshs per month
   b) 5000kshs per month
   c) 3000 kshs per month
   d) 4000kshs per month

4. When performing a comprehensive geriatric assessment of an older adult, the therapist should focus on (1 mark)
   a) Chronic illnesses
   b) Functional abilities
   c) Immunological function
   d) Physical signs of aging

5. A 72 year old woman is hospitalized with pneumonia and becomes disoriented and confused 2 days after admission. When assessing the patients status the physiotherapist determines the patient is experiencing delirium rather than dementia, based on the knowledge that?(1 mark)
   a) The onset of delirium is usually insidious while for depression is acute
   b) The dementia has isolated incidences of memory loss
   c) Memory is impaired in dementia but not in delirium
   d) Delirium has episodes of depression

6. When teaching a husband of a patient with Alzheimer's disease you explain that Alzheimer's is characterized by all except? (1 mark)
   a) Neural plaques
   b) Neural tangles
   c) Brain atrophy
   d) Atherosclerosis

7. The classic features of Parkinsonism disease are (1 mark)
   a) Tremors at rest
   b) Akinesia
   c) Rigidity
   d) All the above

8. Which of the following neurotransmitters is low in Parkinsonism? (1 mark)
   a) Noradrenaline
   b) Serotonin
   c) Dopamine
   d) Acetylcholine

9. Changes in intracellular substances during aging excludes (1 mark)
   a) Increased cross linkages of collagen
   b) Loss of elasticity in elastic tissues
   c) Loss of resilience in connective tissue
   d) Loss of fat cells deposition in muscle fiber

10. Activity theory suggests that activity
    a) Is constructed by the individual
    b) Is something to reduce as one ages
    c) Is ranked in the age – stratification perspective
    d) Best prescription for old age

11. Signs and symptoms of age related macular degeneration include?
    a) Decrease in depth perception.
    b) Deficits in peripheral vision
    c) Distortion of lines and print
    d) Reports of flashes of light

12. An elder lady currently takes Bisphosphates. The medications are useful in reducing?
    a) Osteoporosis
    b) Bronchospasm
    c) Arteriosclerosis
    d) Hallucinations

13. A 79 year old retired farmer continues to purse lifelong interest in walking and dancing this exemplifies which theory of aging??
    a) Continuity
    b) Developmental
    c) Disengagement
    d) Physical

14. A 75 year old with diabetes and osteoarthritis is evaluated in your clinic which of the following is most predictive of dependence of activities of daily living?
    a) Low bone density
    b) Orthostatic Hypotension
    c) Mini mental status exam score of 19 out of 30
    d) Impaired two point discrimination in the lower extremities

15. Which of the following symptom is a feature of senility and not dementia?
    a) Poor ability to concentrate on a specific task
    b) Changes in posture
    c) Fluctuation of alertness
    d) Inability to communicate verbally

16. Which of the following is not a significant predictor of functional decline in a hospitalized elderly patient
    a) Presence of delirium
    b) Advanced age
    c) Multiple medical comorbidities
    d) Atypical presentation of illness

17. A 70 year old lady, present with CVA with left side stroke. Complains of difficulty in moving the lower limb during walking. Which of the following is not an evidence- based intervention for decreasing her risk of falling?
    a) Balance and gait training exercises
    b) Home safety visit to reduce hazards
    c) Strengthening exercises
    d) TENs muscle stimulation

18. An elderly patient exhibits symptoms of weight loss with high suspicion of malnutrition. Which of the following is not a predictor of malnutrition in the patient?
    a) Weight loss of more than 10% in a 6 month period
    b) BMI below 21kg/m2
    c) Albumin less than 3.0mg/dl
    d) Reduced skin fold thickness

19. Leading cause of death in the elderly
    a) Hypertension
    b) Diabetes
    c) COPD
    d) All the above
20. Peripheral nervous system changes due to aging will not include?
    a) Increased size of myelinated fibers
    b) Reduced nerve conductivity
    c) Reduced spinal motor neurons
    d) Increased neural plaques

SECTION B: SHORT ANSWER QUESTIONS   (40 MARKS)

1. Define what biological theory of aging hypothesizes. Outline the different theories that classified under this category. (8 marks)
2. What are 8 possible physiological musculoskeletal changes that may occur due to ageing (8 marks)
3. Explain what the following terms mean: (8 marks)
    i. Osteopenia:
    ii. Polypharmacy
    iii. Delirium
    iv. Iatrogenic
4. Designate and describe the 4 different places a gerontology physiotherapist may be employed in (8 marks)
5. Name 8 indicators that are used to access the quality of life of a population (8 marks)

SECTION C: LONG ANSWER QUESTIONS (40 marks)

1. Mr. Bosire is a 72 y/o gentleman admitted in the ward. He has a history of progressive memory loss although he denies any problems. Family reports episodes of him getting lost. He was an accountant, and is now unable to keep his own cheque book straight. His wife died 2 years ago, and he was diagnosed with depression at that time. In addition, he has HTN and DM. His father was diagnosed with Alzheimer's disease at the age of 85. Discuss a comprehensive geriatric assessment you would do for Mr Bosire. (20 marks)

2. An 80 year old female is diagnosed with incontinence

    i. What is incontinence and the broad classification of the different types (2 marks)

    ii. Name and differentiate the different types of urinary incontinence (10 marks)

    iii. Discuss the different physiotherapy techniques you might use and how they are done to address the problem (8 marks)