



(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATIONS

MAIN EXAMS

FOR THE DEGREE

OF

BACHELOR OF OPTOMETRY AND VISION SCIENCES

COURSE CODE: BOV 424

COURSE TITLE: GERIATRIC OPTOMETRY

DATE: 22/04/2022

TIME: 8-10AM

INSTRUCTIONS TO CANDIDATES

1. Answer all questions in the TWO (2) sections
2. Write your answers on the university examinations booklets provided
3. Write your university registration number only; do NOT write your names on the booklets
4. Write your registration number on every new leaf of the examinations booklet on which you write your answers

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over

SECTION A ANSWER ALL THE QUESTIONS IN THIS SECTION

1. The instrument that is generally used to measure intraocular pressure in a scarred cornea is known as
 - A. Pulse air
 - B. Air puff
 - C. Tonopen
 - D. Perkins
2. Which of these statements is true for the basal cell carcinoma of the lids?
 - A. Spreads to local lymph nodes
 - B. Commonest malignant tumor of the lids
 - C. Predilection for the lower lid
 - D. Cryotherapy is the treatment choice
3. A 75 year old diabetic presented with sudden loss of vision in one eye. Fundus examination showed multiple flame shaped hemorrhages in the retina. What is the probable diagnosis?
 - A. Central retinal vein occlusion
 - B. Retinal detachment
 - C. Proliferative retinopathy
 - D. Cystoid macular oedema
4. The following are psychological impacts on the aging patients. Which one is not
 - A. Declining health
 - B. Increased response time
 - C. Sensory decline
 - D. Income decline
5. The following are physical changes that are observed in aging patients except
 - A. Decreased capability of hearing, vision, taste and smell
 - B. Reduced reaction time for complex tasks
 - C. Decreased ability to multi-task
 - D. Difficulty in recovery from disease and injury
6. The following are benign skin changes with age. Which one is not
 - A. Cutaneous horn
 - B. Seborrheic keratosis
 - C. Xanthelasma
 - D. Basal cell carcinoma
7. The following are factors that can influence the psychological state of the aging patients except
 - A. Retirement
 - B. Death of spouse
 - C. Increase in social roles
 - D. Elder abuse

8. The following are characteristics of depression except
- A. Feeling hopefulness
 - B. Sleeping problems
 - C. Changes in appetite
 - D. Irritability
9. The following are anatomical changes with age that occurs at the cornea. Which one is not?
- A. Loss of corneal sensitivity
 - B. Increase in corneal fragility
 - C. Loss of stromal transparency
 - D. Corneal melanosis
10. The following are examples of elderly eye diseases that present with significant loss of vision except
- A. Retinopathy of prematurity
 - B. Cataract
 - C. Dry eyes
 - D. Glaucoma
11. The following is true about crocodile shagreen, a specific corneal findings seen with age, except one
- A. Anterior or posterior opacities in the corneal stroma separated by darker clear zones
 - B. The pattern resembles the crocodile skin
 - C. Anterior form is thought to be more common than the posterior
 - D. Iron deposits occur in the corneal epithelium
12. Which of the following pathological cognitive changes has the following characteristics
- i. Acquired, generalized and often progressive impairment of cognitive function
 - ii. Manifests as a broad spectrum of deficits including memory loss
 - iii. Affects the content but not the level of consciousness
 - iv. Reflects the underlying pathology of the cerebral cortex
- A. Dementia
 - B. Mild cognitive impairment
 - C. Multi-infarct dementia
 - D. Parkinson's disease
13. The following medications are associated with adverse drug reactions in the elderly. Which one is not
- A. Non-steroidal anti-inflammatory drugs
 - B. Musculoskeletal agents
 - C. Benzodiazepines
 - D. Cephalosporin

14. The following are different ways of provision of long term care to the aging population. Which one is not?
- A. Hospice care
 - B. Palliative care
 - C. Continuing care retirement communities
 - D. Ambulance quick response care
15. Contrast sensitivity is affected in one of the following conditions. Which one is it
- A. Diabetic retinopathy
 - B. Optic neuritis
 - C. Myopia
 - D. Astigmatism
16. Which of these anti-glaucoma drugs are contra indicated in patients with Sulphur allergy
- A. Bimatoprost
 - B. Brinzolamide
 - C. Timolol maleate
 - D. Travoprost
17. All of the following is true about arcus senilis except one
- A. Seen in elderly
 - B. Lipid infiltration in corneal epithelium
 - C. Seen in the corneal stroma
 - D. Clear area between limbus and arcus
18. The following conditions causes decreased corneal sensation except
- A. Herpes simplex keratitis
 - B. Acanthamoeba keratitis
 - C. Post keratoplasty
 - D. Acoustic neuroma
19. Which of these developmental cataracts is not genetically inherited?
- A. Zonular cataract
 - B. Cataractacoerulea
 - C. Cataractacentralispulverulenta
 - D. Coralliform cataract
20. Which of the following is a dystrophy involving bowman's layer of the cornea
- A. Granular dystrophy
 - B. Meesman corneal dystrophy
 - C. ThielBehnke corneal dystrophy
 - D. Gelatinous drop like corneal dystrophy

SECTION B ANSWER ALL THE QUESTIONS IN THIS SECTION 40 MARKS

1. Highlight any 4 renal functional changes that are expected in the elderly population (4marks)
2. Discuss any four major causes of vision loss in the elderly under the following sub-headings (8marks)
 - i. Functional loss
 - ii. Clinical presentations
3. Describe any 4 principles that guides the prescription of medications to the geriatric patients (8marks)
4. Describe the hearing process in a normal functioning hearing system (10 marks)
5. Describe any five measures that an optometrist must consider while dealing with patients with cognitive decline during an eye examination (10 marks)