

UGANDA MARTYRS UNIVERSITY
FACULTY OF HEALTH SCIENCES
BACHELOR OF SCIENCE IN PUBLIC HEALTH
EXAMINATION YEAR ONE SEMESTER II ACADEMIC YEAR 2021/2022
BSPH1202: INTRODUCTION TO NON-COMMUNICABLE DISEASES
DATE: 22nd July, 2022 TIME: 2:00pm-5PM

Instructions

1. Follow instructions per section
2. Indicate your registration number on each answer script used
3. Clear legible hand writing is a MUST
4. Attempt ALL questions
5. NO examination related material should leave the examination room

SECTION A: MULTIPLE CHOICE/TRUE-FALSE QUESTIONS (20 marks)

For questions 1-10, Circle the corresponding most correct answer

1. What is the diagnostic test in cancer of the cervix?
 - a. PAP smear
 - b. Visual inspection under lugol iodine
 - c. Visual inspection under acetic acid
 - d. Biopsy with histological exam
2. Screening for cancer of the cervix commences?
 - a. < 18 years
 - b. 18-25 years
 - c. >25 years
 - d. At any age
3. IN which age range is cervical cancer vaccine recommended?
 - a. 9-13 years
 - b. 6-18 years
 - c. Any female < 18 years
 - d. All the above qualify
4. Which of the following is not a modifiable factor for cancer of the breast?
 - a. Contraceptive use
 - b. Age at first sexual intercourse
 - c. Family history
 - d. Density of breast tissue
5. Which of the following BMI values corresponds to morbidly obese?
 - a. <25
 - b. >40
 - c. >35
 - d. 25-30
6. The drug of choice in treatment of diabetes mellitus type II is?
 - a. Glibenclamide
 - b. Insulin
 - c. Metformin
 - d. Arcabose
7. Type III diabetes mellitus is also known as?

- a. Gestational diabetes mellitus
 - b. Non-insulin dependent diabetes
 - c. Pancreatic diabetes
 - d. Diabetes insipidus
8. What is the diagnostic gold standard for cancer of the prostate?
- a. PSA
 - b. Transurethral resection
 - c. Truncut biopsy
 - d. Abdominal ultrasound scan
9. Obesity diagnosis is by the following except?
- a. Densitometry
 - b. Mid-upper arm circumference
 - c. Lipid profile
 - d. Blood glucose
10. Which of the following is not an irritative symptom in Benign Prostate hypertrophy?
- a. Dysuria
 - b. Hematuria
 - c. Lower back pain
 - d. Dribbling
11. Which strain of HPV is commonly associated with Cervical cancer?
- a. 16
 - b. 18
 - c. 16 & 18
 - d. 45

For questions 12-20, Write T for True or F for False against each of the statements

12. Random blood sugar test in a suspected DM patient is a good example of primary prevention
13. All forms of cervical cancer are not caused by Human papilloma virus
14. The hepatic islet of Langerhans beta cells produce insulin.....
15. If the body weight is 100 kgs and height is 400 cm the BMI corresponds to morbid obesity.....
16. In dissemination of information, selection bias cannot affect quality of results
17. Hypertension is associated with a high likelihood of causing renal disease as compared to diabetes mellitus
18. Risk aversion in non-communicable diseases is an example of primary prevention
19. Erectile dysfunction is a common macro-vascular complication in diabetes
20. Type II DM should exclusively be managed with oral hypoglycemic drugs

SECTION B: STRUCTURED QUESTIONS (40 marks)

Fill in the spaces provided in response to the questions

21. List the two major forms of chronic complications in diabetes mellitus (2 marks)

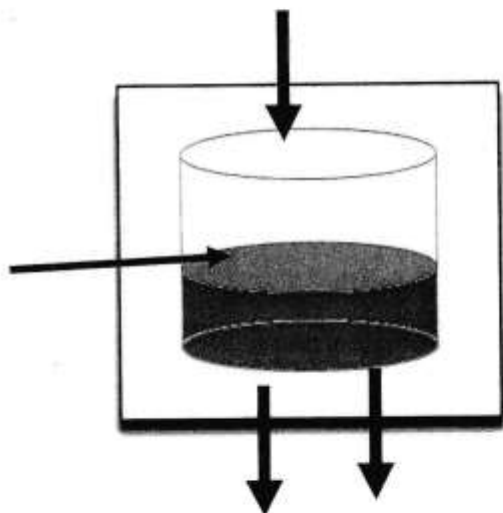
i.

ii.

22. List the cut off values for the following in a PRE-DIABETIC patient (2 marks)
- Fasting blood sugar
 - Glycated hemoglobin
23. As a public health practitioner, Surveillance is one of the ways to keep NCD burden of disease in check. List 2 types of surveillance systems that can be used to this effect (2 marks)
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24. The best proxy measure to assess how much insulin a Diabetic patient is producing over the duration of treatment is (1 mark)
25. With exception of incidence and prevalence, list 3 ways of assessing burden of NCDs (3 marks)
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SHORT ESSAY QUESTIONS

26. Study the figure below used to illustrate trends on a given NCD and answer the questions below; (10 marks)



- Name the different parts indicated by the arrows (4 marks)
 - What name is given to the above figure (2 marks)
 - Briefly explain how the different components of the figure relate (4 marks)
27. You are called to give a health education talk on non-communicable diseases to first year freshers at a university in the city center Kampala. Briefly explain how you would articulate the following;

- a. Safe male circumcision decreases the life time risk of partner cervical cancer (5 marks)
 - b. Low cholesterol diet decreases risk of coronary artery disease (5 marks)
28. The Population of Kasensero on March 30, 2022 was 183,000. The District health statistics show that the Number of new Diabetes Mellitus type 2 cases occurring between January 1 and June 30, 2022 was 26 and the number of DM cases on June 30, 2022 was 264
- a. Calculate the incidence rate of Diabetes mellitus in the 6-month period (5 marks)
 - b. Calculate the prevalence rate of Diabetes mellitus as of June 30, 2022 (5 marks)

SECTION C: ESSAY QUESTIONS (40 Marks)

29. Policy is very key in addressing the current increasing burden of NCDs. Using the *policy triangle*, illustrate how you would address the rising burden of Diabetes mellitus in your community (10 marks)
- c. Briefly describe any 5 barriers and enablers for success of the above policy (10 marks)
30. During a health community outreach camp, you are involved in, a 35-year-old Mr. Kasibante presents to you with complaints of fatigue and occasional episodes of headache. He denies having excessive thirst, increased micturition or appetite. You decide to weigh him and find he has 100 kgs and a height of 175 centimeters. His blood pressure is 140/80 mmHg. He intimates that he has results from some tests in ran during his last visit to the health center IV 3 months ago but was unable to get feedback from the Dr who left before he returned from the laboratory.

CHO-5.9 mmol/l (3.7-5.2)

HDL-C 0.95 mmol/l (1.03-1.55)

LDL-C 4.4 mmol/l (0.0-2.6)

TGA-1.2 mmol/l (0.0-1.7)

FBS 6.5 mmol/l

OGTT 7.7mmol/l

- a. Keeping the history in mind, interpret Mr. Kasibante's results (4 marks)
- b. List one investigation you would recommend at this point to confirm the principle diagnosis (1 marks)
- c. Write down a management plan for this patient (consider using the mnemonic) (15 marks)