



*(University of Choice)*

**MASINDEMULIRO UNIVERSITY OF**

**SCIENCE AND TECHNOLOGY**

**(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS**

**2020/2021 ACADEMIC YEAR**

**THIRD YEAR, FIRST TRIMESTER DIRECT/UPGRADING EXAMINATION**

**FOR THE DEGREE**

**OF**

**BACHELOR of Science In Clinical medicine**

**COURSE CODE: HCM 361.**

**COURSE TITLE: MEDICINE II**

**DATE: MONDAY 19<sup>TH</sup> APRIL, 2021**

**TIME: 9.00-12.00 NOON**

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**INSTRUCTIONS TO CANDIDATES**

Section A: Multiple choice questions (CHOOSE THE BEST ANSWER IN SECTION A)

Section B: Short Answer Questions

Sections C: Long Answer Questions

Attempt all questions

TIME: 3 Hours

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**MMUST OBSERVES ZERO TOLERANCE TO EXAMINATION CHEATING**  
**MEDICINE II.**

**SECTION A-MCQ (BEST ANSWER QUESTION).(20MKS).**

1. The following in relation to GERD are all true **EXCEPT**
  - a) Can be treated first with proton pump inhibitors
  - b) 24-hr PH monitoring is the best test
  - c) OGD is done when PPIs fail
  - d) Nissen Fundoplication is the best treatment
  
2. Which of the following is **NOT TRUE** concerning achalasia
  - a) Dysphagia to both solid and liquid foods
  - b) Progressive dysphagia from solid then liquid foods
  - c) Manometry is the best diagnostic test
  - d) Bird's beak deformity on barium swallow
  
3. Which of the following is **NOT TRUE** concerning chronic pancreatitis
  - a) CT abdomen shows calcification
  - b) Can present with diabetes mellitus
  - c) Can present with steatorrhea
  - d) Pancreatic pseudocyst is a complication
  
4. The following are causes of gastroparesis **EXCEPT**
  - a) Systemic sclerosis
  - b) Hypothyroidism
  - c) Diabetes mellitus
  - d) Esophageal cancer
  
5. The following is **NOT** a complication of peptic ulcer disease
  - a) Perforation
  - b) Gastric outlet obstruction

- c) Bleeding
  - d) Diarrhea
6. The management of peptic ulcer disease (PUD) includes the following **EXCEPT**
- a) Proton pump inhibitors
  - b) Triple therapy
  - c) Nissen Fundoplication
  - d) Quadruple therapy
7. The causes of chronic diarrhea usually **DOES NOT** include the following
- a) Hyperthyroidism
  - b) Hypothyroidism
  - c) Addison's diseases
  - d) Diabetic Autonomic Neuropathy
8. Which is the **BEST** initial test for acute pancreatitis
- a) Lipase
  - b) CT abdomen
  - c) Abdominal Ultrasound
  - d) Amylase
9. Which is the **BEST** initial test for chronic pancreatitis
- a) CT abdomen
  - b) Lipase and/or amylase
  - c) Abdominal ultrasound
  - d) ERCP
10. Which of the following is **NOT** a cause of bloody diarrhea
- a) E.coli
  - b) Shigella

- c) Salmonella
  - d) H-pylori bacteria
11. Which of the following is **NOT TRUE** concerning acute liver failure
- a) ALT/AST raised
  - b) Coagulopathy
  - c) Encephalopathy
  - d) Portal hypertension
12. Which one **BEST** defines acute liver failure
- a) Encephalopathy, coagulopathy and reduced albumin
  - b) Encephalopathy, reduced INR, elevated ALT and AST
  - c) Altered mental state, raised INR, elevated ALT
  - d) Encephalopathy, coagulopathy, jaundice and reduced serum proteins
13. Which is one is **TRUE** concerning chronic liver disease
- a) ALT/AST may be normal
  - b) ALT/AST is often elevated
  - c) Albumin is often normal
  - d) Often both AST and ALT elevated with AST>ALT (2:1)
14. The following is **NOT TRUE** concerning Autosomal Recessive (AR) pattern of inheritance
- a) Skipping of generation
  - b) No gender bias
  - c) Both parents are carriers
  - d) Only one parent is a carrier
15. The following is **NOT TRUE** concerning Autosomal Dominant pattern of inheritance
- a) Heterozygous will be diseased

- b) 50% will have the disease and 50% be normal
  - c) No gender bias
  - d) Skipping of generation
16. The following is **NOT TRUE** concerning the criteria for the diagnosis of DM
- a) HBA1C  $\geq$ 6.5%
  - b) Fasting Plasma Glucose (FPG)  $>$ 7mmol/L
  - c) 2-hPG  $>$ 11.1mmol/L during an OGTT
  - d) Random Blood Sugar (RBS)  $<$ 11.1mmol/L
17. Which of the following is **NOT TRUE** concerning Type 1 diabetes mellitus (T1DM)
- a) Onset always in childhood
  - b) Is due to absolute insulin deficiency
  - c) Autoimmune in nature
  - d) Associated with Anti-glutamic acid decarboxylase (GAD) and islet cell antibodies
18. Concerning a case of Diabetic Ketoacidosis (DKA) which of the following is **NOT TRUE**
- a) Occurs in type 1 diabetes mellitus
  - b) pH $<$ 7.3, HCO<sub>3</sub> $<$ 15, ketones in urine or capillary
  - c) ABGs will show metabolic acidosis
  - d) ABGs will show metabolic alkalosis
19. The following are all true concerning thyroid disease **EXCEPT**
- a) Clinical hypothyroidism: TSH high, T3 and T4 low
  - b) Clinical hyperthyroidism: TSH low, T3 and T4 high
  - c) Subclinical hypothyroidism: TSH high, T3 and T4 normal
  - d) Subclinical hypothyroidism: TSH low, T3 and T4 normal
20. The following is **NOT TRUE** about diabetes insipidus

- a) Polyuria, polydipsia, hypernatremia and hyperglycemia
- b) Polydipsia, polyuria, hypernatremia and normoglycaemia
- c) Polyuria, polydipsia, hypernatremia with hypokalemia
- d) Polyuria, polydipsia and hypernatremia with a brain disease

**SECTION B. SHORT ANSWER QUESTIONS (40 MKS).**

1. Concerning a case of upper gastrointestinal (GI) bleeding:
  - a. Define upper gastrointestinal bleeding (2 marks)
  - b. List **FOUR** (4) common causes of upper GI bleeding (2 marks)
  - c. How will you investigate this case (6 marks)
2. A 45 year old alcoholic is suspected to have liver cirrhosis:
  - a. How will you investigate this case (6 marks)
  - b. List **FOUR** (4) other causes of liver cirrhosis (4 marks)
3. Concerning hereditary disorders
  - a. Define autosome and sex chromosomes (2 marks)
  - b. List **FOUR** (4) conditions that are autosomal dominant 4 marks)
  - c. List **FOUR** (4) conditions that are autosomal recessive (4 marks)
4. Concerning a case of Cushing syndrome
  - a. State the clinical features of a Cushing syndrome (4 marks)
  - b. State the first line investigations (screening test) to be done (2 marks)
  - c. State the second line investigation (confirmatory test) if any of the 1<sup>st</sup> line test is positive (2 marks)
  - d. State the third line investigation (localization tests) to find where the lesion is (2 marks)

**SECTION C. LONG ESSAY QUESTIONS (40 MKS).**

1. A 50 year old man is suspected to have a type 2 diabetes mellitus (T2DM).
  - a. How will you investigate this case (10marks)
  - b. Which acute and chronic complications is he likely to develop (10 marks)
2. A 40 year old fat, fair, female patient presents with epigastric pain radiating to the back and a diagnosis of acute pancreatitis is made:
  - a. How will you investigate this case (10)
  - b. What conservative treatment will you prescribe for her (5 marks)
  - c. What complications is she likely to develop (5 marks)

