



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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

THIRD YEAR FIRST TRIMESTER EXAMINATION

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN CLINICAL MEDICINE**

COURSE CODE: HCM 311.

COURSE TITLE: SURGERY II

DATE: 20TH APRIL 2021

TIME: 9.00-12.00 NOON

INSTRUCTIONS TO CANDIDATES

1. READ THE INSTRUCTIONS AT THE BEGIN OF EACH SECTION
2. THIS PAPER CONSIST OF:
 - Section A: Multiple Choice Questions (MCQ) 20 Marks.
 - Section B: Short Answer Questions (SAQ) 40 Marks.
 - Section C: Long Answer Question (LAQ) 40 Marks
3. NO MOBILE PHONE IS ALLOWED IN THE EXAMINATION ROOM

DURATION: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 80 & Printed Pages, Please Turn Over

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

1. A 58-year-old man presents with a bulge in his right groin associated with mild discomfort. On examination the bulge is easily reducible and does not descend into the scrotum. Which of the following changes is most concerning for possible strangulation requiring emergent repair of the hernia?

A. Increase in size of the hernia B. Descent of hernia into the scrotum C. Development of a second hernia in the left groin D. Inability to reduce hernia E. Worsening pain over the hernia with walking

2. A 73-year-old woman presents to the emergency room complaining of severe epigastric pain radiating to her back, nausea, and vomiting. CT scan of the abdomen demonstrates inflammation and edema of the pancreas. A right upper quadrant ultrasound demonstrates the presence of gallstones in the gallbladder. Which of the following is an important prognostic sign in acute pancreatitis according to Ranson's criteria?

A. Amylase level B. Age C. Total bilirubin level D. Albumin level E. Lipase level

3. Acute catarrhal appendicitis has following clinical signs: 1. Kocher-Volkovich symptom 2. Bartomier-Michelson's sign 3. Body temperature increase 4. Rovsing's sign 5. Blumberg's sign

Choose the right answer combination: a) 1, 2, 5 b) 2, 3, 5 c) 1, 4, 5 d) 1, 2, 3, 4 e) 1, 3, 4, 5

4. Weakness of what wall is typical for direct inguinal hernia?

A. Posterior B. Superior C. Anterior D. Inferior E. All walls

5. Presence of testis in the hernia sac is typical for:

A. Sliding hernia B. Strangulated hernia C. Femoral hernia D. -Congenital hernia E. Indirect inguinal hernia

6. What serves as a posterior wall of inguinal canal?

A. Inguinal ligament B. Inguinal aponeurotic fold C. Cooper's ligament D. Transverse fascia E. Rectus

7. Spots of cyanosis/ecchymosis on the flanks in acute pancreatitis are characteristic of:

A. Granwald's symptom B. Mondor's syndrome C. Grey-Turner's sign D. Kehr's symptom E. Voskresensky's sign

8. Which signs are positive in patients with acute cholecystitis?

A. Ortner, Kehr, Murphy

B. Kocher, Sitkovski, Rovzing

C. Pasternatski

D. Mayo-Robson

E. Cullen, Grey Turner

9. An 70-year-old male presents with a clinical diagnosis of acute cholangitis.

Which organism is most likely involved in the pathogenesis of ascending cholangitis? A. Clonorchis sinensis B. Escherichia coli C. Salmonella D. Staphylococcus aureus E. Clostridia

10. Acute cholangitis is characterized by three symptoms known as Charcot's triad. They are: 1). Weight loss; 2). RUQ abdominal pain; 3). Jaundice; 4). Nausea and vomiting; 5). Fever. Choose the correct combination. A. 1, 2, 3 B. 1, 3, 4 C. 1, 4, 5 D. 2, 3, 5 E. 2, 4, 5

11. Which of the following statements are true?

A The parietal peritoneum is innervated by somatic nerves. B The parietal peritoneum is innervated by autonomic nerves. C Pain originating in the parietal peritoneum is poorly localised. D. None of the above

12 Which of the following is not absorbable suture?

A. catgut

B. polyimide

C polyglactin

D. polyester

13. Which of the following statements regarding investigations in dysphagia are false?

A Barium swallow is the investigation of choice in GERD.

B Flexible oesophagogastroduodenoscopy (OGD) is the initial investigation of choice in suspected carcinoma.

C Endosonography (EUS) should be carried out when a carcinoma is seen in the oesophagus.

D Oesophageal manometry should be done when motility disorder is suspected.

E. 24 h pH recording is an accurate method of evaluating GERD

14. A 40-year-old man presented with upper gastrointestinal haemorrhage. He may be managed by

a) nasogastric tube feeding b) induction of emesis to clear the blood from the stomach c) endoluminal rubber band ligation or injection sclerotherapy d) securing of a good intravenous line e) monitoring of blood pressure and pulse

15. A 45-year-old man complains of burning epigastric pain that wakes him up at night. The pain is relieved by eating or using over-the-counter antacids and H₂ blockers. Diagnosis is best confirmed by which of the following?

A. Urea breath test

B. Serum gastrin levels

C. Barium meal examination

D. Upper endoscopy

E. Upper endoscopy and biopsy

16. A 30-year-old executive learns that he has a duodenal ulcer. His gastroenterologist prescribes and outlines medical therapy. The patient worries that if medical therapy fails he may need surgery. Which of the following is the best indication for elective surgical therapy for duodenal ulcer disease?

A. An episode of melena

B. Repeated episodes of pain

C. Pyloric outlet obstruction due to scar formation from an ulcer

D. Frequent recurrences of ulcer disease

E. Referral of pain to the back, suggestive of pancreatic penetration.

17. Which of the following are true about a sliding inguinal hernia?

A. It is common in men. B. It should be suspected clinically in small hernias confined to the inguinal canal. C. It is more common in the young patient. D. It is impossible to control with a truss, and hence an operation is indicated.

18. Gas in the biliary system in a plain X-ray is diagnostic of

- A. Choledochoduodenal fistula B. intestinal obstruction C. Emphysematous Cholecystitis
D. Viral hepatitis E. A and C

19. Sigmoid volvulus has been associated with each of the following except:

- A. Chronic constipation and laxative abuse. B. Chronic rectal prolapse. C. Chronic traumatic paralysis. D. Medical management of Parkinson's disease.

20. A 20-year-old man swallowed two open safety pins. X-rays show pins in the small intestine, the most appropriate management of this point is:

- A. IV antibiotics B. 250 ml magnesium citrate orally C. immediate surgery D. Serial abdominal exam & x-rays if required

SHORT ANSWER QUESTION(10 Marks each)

1. A 68-year-old male presented with history of progressive dysphagia which at initial onset the dysphagia was to solids then later liquids.

- a) what's the most likely diagnosis (1mk)
b) list four predisposing factors (4mks)
c) outline management of this patient (5marks)

2. A 11-year-old presented in casualty with what the clinician thought is paralytic ileus.

- a) list two possible causes of paralytic ileus (1mk)
b) list eight presentations (4mks)
c) State management (5mks)

3. Diana a 26-year-old female presented to the casualty with acute onset of generalized abdominal pain, abdominal distension and reduced peristalsis

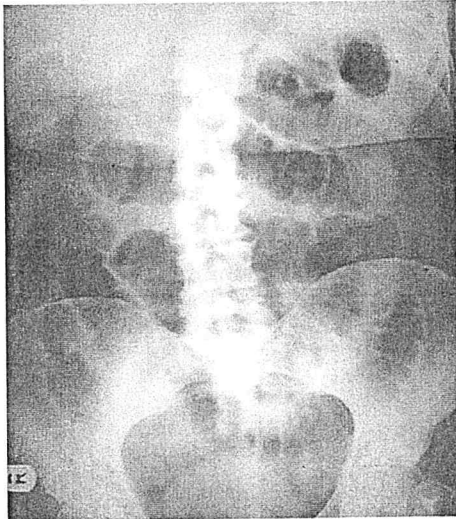
a) List differential diagnosis(5mks)

b) Discuss immediate management in casualty(5mks)

4. List pre-operative investigations done in a surgical patient(10mks)

LONG ANSWER QUESTIONS (40 MARKS)

1. A 45-year-old man presented to the emergency department with colicky abdominal pain, vomiting, and a painful groin lump. On examination he had a pulse of 110 beats/min and temperature of 37.8°C. There was marked abdominal distension, high pitched bowel sounds, and an erythematous, tender mass in the left groin above and medial to the pubic tubercle (fig 1 below). A plain abdominal radiograph was taken in the emergency department.



A) What is the diagnosis and the cause as per abdominal radiograph? (5marks)

B) what are the cardinal signs of peritonitis(3marks)

c)State the other imaging modalities for above diagnosis (2marks)

d)Describe the management of the above patient? (10marks)

2. A 50-year-old male presents to Kakamega county referral Hospital with severe haematemesis,
With blood pressure of 90/60mmHg

- a) Outline four differential diagnoses. (4 marks).
- b) Enumerate two investigations that you will order to the patient. (2 marks).
- c) State 5 causes of upper GI bleeding (5marks)
- d) Outline the emergency treatment and management for this patient. (9marks)

