



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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

SECOND YEAR, FIRST TRIMESTER EXAMINATION

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
MAIN PAPER**

COURSE CODE: BSP 215

COURSE TITLE: GENERAL MEDICINE II

DATE: THURSDAY 22ND APRIL 2021

TIME: 8.00-11.00 AM

INSTRUCTIONS TO CANDIDATES

Answer All Questions

Section A: Multiple Choice Questions (MCQ)	20 Marks.
Section B: Short Answer Questions (SAQ)	40 Marks.
Section C: Long Answer Question (LAQ)	40 Marks

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This paper has 5 pages

SECTION A: MULTIPLE CHOICE QUESTIONS (MCQ) 20 MARKS

1. A young girl comes to the cardiology ward with history of breathlessness and palpitations for the last one year. After auscultation of precordium the cardiologist makes a diagnosis of mitral stenosis. The most important sign on which this diagnosis is based is
 - a) Ejection systolic murmur
 - b) Mid diastolic murmur
 - c) Mid systolic click
 - d) Pan systolic murmur
 - e) Third heart sound
2. The PR interval is:
 - a) A. Beginning of the P to the beginning of the R
 - b) B. Beginning of P to end of Q
 - c) C. Beginning of P to beginning of Q
 - d) D. Beginning of P to end of R
3. What is the significance of a long PR interval on an EKG?
 - a) Signifies a problem with ventricular conduction
 - b) Signifies an atrial escape beat
 - c) Signifies myocardial ischemia
 - d) Signifies an AV block
4. The ST segment is:
 - a) A. Beginning of S to end of T
 - b) B. Beginning of S to beginning of T
 - c) C. End of S to beginning of T
 - d) D. End of S to end of T
5. In a young boy with hypertension, examination of the cardiovascular system reveals radio femoral delay. The most likely cause of hypertension in this patient is
 - a) Coarctation of the aorta
 - b) Diabetic nephropathy
 - c) Conn's syndrome
 - d) Dissection of aorta
6. An old patient presented in the emergency ward with history of weakness of right side of body with rapid onset. The most first line investigation for this patient is
 - a) Cerebral angiography
 - b) Cerebral spinal fluid examination
 - c) Computerized tomography of brain
 - d) Nerve conduction study
7. A patient with embolic stroke is taking warfarin. He comes to dental for tooth extraction. The most useful investigation to see the effect of warfarin is
 - a) Bleeding time
 - b) Hematocrit
 - c) Platelet count
 - d) Prothrombin time
8. A young lady presents with history of sudden painful swollen of joints after minor trauma since childhood. The most likely diagnosis is
 - a) Disseminated intravascular coagulopathy
 - b) Hemophilia A

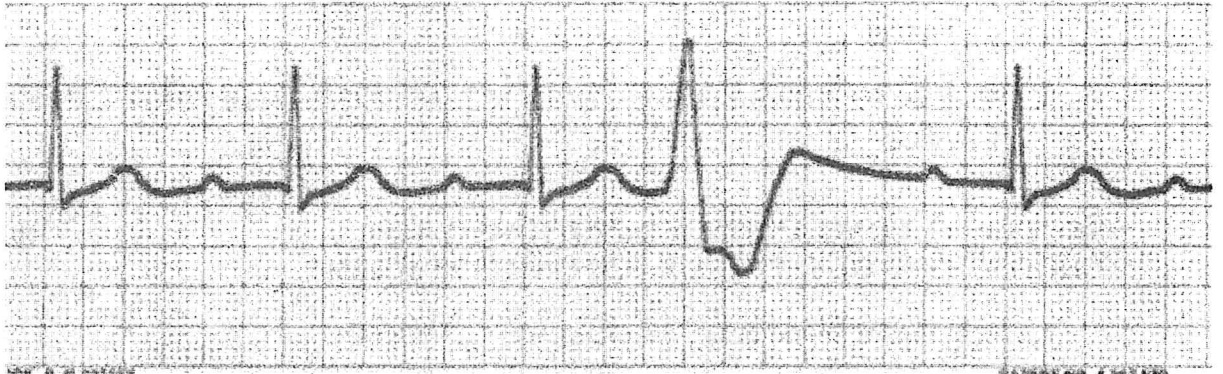
- c) Sick cell disease
 - d) Idiopathic thrombocytopenia purpura
9. Which of the following is true of disseminated intravascular coagulation?
- a) It can result in the formation of blood clots as well as bleeding
 - b) It is an inherited disease
 - c) It is contagious and can be passed from person to person
 - d) It is never seen in association with an underlying condition
 - e) All of the answers are true of this condition
10. Which of the following may be an underlying condition that leads to DIC?
- a. Trauma
 - b. Cancer
 - c. Liver disease
 - d. Complication of pregnancy
 - e. All of these conditions could lead to DIC
11. Only African Americans get sickle cell disease.
- a) True
 - b) False
12. People with sickle cell disease cannot get malaria
- a) True
 - b) False
13. Which of the following statements is TRUE concerning sickle cell disease
- a) It is X-linked
 - b) It is Autosomal dominant
 - c) It is Autosomal recessive
 - d) The red blood cells are spherical in shape
14. In patients with hemophilia, which of these can increase the risk of cerebral micro bleeds?
- a) Cardiovascular risk factors
 - b) Increased age
 - c) Hepatitis C infection
 - d) All of the above
15. This lacks in patients with hemophilia A
- a) X chromosome
 - b) Calcium
 - c) Antihemophilic factor
 - d) Plasma thromboplastin
16. Rarely females experience the physiological defect of hemophilia as they do so only when they are

- a) Carrier for the defect
 - b) Wives of hemophilic husbands
 - c) Homozygous for the defect
 - d) Heterozygous for the defect
17. You're caring for a child with Coarctation of the aorta and educating the parents about the child's condition. Which statement by the parents demonstrates they understood the pathophysiology of this defect?
- a) "This condition can lead to right-sided heart failure."
 - b) "The narrowing of the aorta leads to a high blood pressure in the arteries that are found before the site of narrowing in the aorta."
 - c) The dilation of the aorta leads to a decrease blood pressure in the arteries that are found after the site of dilation."
 - d) "The upper and lower extremities will experience a decrease in blood flow due to the defect in the aorta."
18. A newborn has severe Coarctation of the aorta. What signs and symptoms would you expect to find in this patient? Select all that apply:
- a) Very strong bounding pulses in the upper extremities
 - b) Cool legs and feet
 - c) Absent/diminished femoral pulses
 - d) All of the above
19. The heart attack occurs when there is blood clotting in
- a) Renal arteries
 - b) Mesenteric arteries
 - c) Hepatic arteries
 - d) Coronary arteries
20. The myocardial infarction is also known as
- a) Diabetes
 - b) Heart attack
 - c) Cholesterol
 - d) Hypertension

SECTION B: SHORT ANSWER QUESTIONS (SAQ)**40 MARKS**

ANSWER ALL QUESTIONS. EACH QUESTION IS 5 MARKS

1. Use the ECG radiograph to answer the questions below (5 marks)



HEART RATE:

HEART RHYTHM:

PULSE PALPATION:

2. Use the radiograph to answer the questions below (5 marks)



HEART RATE:

HEART RHYTHM:

PULSE PALPATION:

3. Explain what is happening in the heart and lungs when someone is in left-sided heart failure(5 marks)
4. State 5 signs and symptoms of hemophilia (5 marks)
5. State difference between HbA and HbS (5 marks)
6. State 5 complications of aortic dissection (5 marks)
7. What do each of the waves on the EKG represent? Don't forget to mention atrial repolarization. (5 marks)

P wave-

Q wave-

QRS complex-

T wave-

8. What are the different purposes of the 12 Lead EKG, telemetry EKG, and halter monitor (5 marks)

SECTION C: LONG ANSWER QUESTIONS (LAQS)
CHOOSE TWO QUESTIONS EACH ONE IS 20 MARKS

40 MARKS

1. Describe the blood coagulation pathway (20 marks)
2. Write short notes on Disseminated intravascular coagulopathy under the following headings(20 Marks)
 - a. etiology of DIC (5marks)
 - b. pathophysiology (5 marks)
 - c. diagnosis, signs and symptoms (6 marks)
 - d. treatment (4 marks)
3. write short notes on sickle cell disease on the following sub headings(20 marks)
 - a. inheritance of SCD (5 marks)
 - b. symptoms of SCD (5 marks)
 - c. complications of SCD (5 marks)
 - d. treatment (5 marks)
4. describe the process of hematopoiesis and maturation pathway of red blood cells (20 marks)