



(University of Choice)
**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

SECOND YEAR, FIRST TRIMESTER EXAMINATION

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

COURSE CODE: BSP 214

COURSE TITLE: GENERAL MEDICINE I

DATE: 5th December 2023

TIME: 8:00am – 10:00am

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: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This paper has 5 pages

SECTION A: MULTIPLE CHOICE QUESTIONS (MCQ) 20 MARKS

1. Toxin production plays an important part in the pathogenesis of all the following EXCEPT which one?
 - A Tetanus
 - B Clostridium difficile
 - C Cholera
 - D Haemophilus influenza
 - E Escherichia coli O571
2. Which of the following is an acute consequence of infection?
 - A Muscle wasting and weight loss
 - B Liver cirrhosis
 - C Fever
 - D Guillian–Barré
3. Which of the following is NOT used in immunization programmes?
 - A Altered toxins from microbes
 - B Human antibodies
 - C Killed organisms (or component parts)
 - D Live attenuated organisms
4. Acute viral infections, such as hepatitis A, are normally diagnosed using which of the following?
 - A White cell count
 - B Erythrocyte sedimentation rate
 - C Specific IgM
 - D Specific IgG
 - E Tissue culture
5. C-reactive protein may be raised in all of the following EXCEPT which one?
 - A Acute bacterial infection
 - B Diabetes
 - C Autoimmune disease
 - D Tuberculosis
 - E Malignancy
6. Which of the following is NOT a laboratory indicator of iron deficiency anaemia?
 - A Microcytic red blood cells
 - B A low serum ferritin
 - C A low serum transferrin
 - D A low serum iron
 - E Hypochromic red blood cells
7. Which of the following statements is NOT true concerning macrocytic anaemia?
 - A Thalassaemia is a common global cause of macrocytic anaemia
 - B Myelodysplasia is a relatively common cause in the elderly
 - C Vitamin B12 and folic acid deficiency must be excluded
 - D Haemolytic anaemia commonly causes a mild macrocytosis
 - E Drugs and toxins may cause macrocytic anaemia
8. Which of the following is NOT typical of a platelet disorder?
 - A Epistaxis
 - B Menorrhagia

- C Psoas haematoma
D Petechiae
9. The activated partial thromboplastin time is prolonged in which of the following?
A Patients with platelet defects
B Factor XIII deficiency
C Factor XII deficiency
D All cases of von Willebrand's disease
10. Which of the following statements is correct?
A. Insulin suppresses the activity of glycogen synthase
B. Insulin mediates glucose uptake in the brain
C. "Prediabetes" is a condition characterized by an increased risk for the future development of type 2 diabetes
D. The rise in insulin concentration after meal ingestion is reduced in type 1 but not in type 2 diabetes
11. Combination chemotherapy (HAART) is now used to treat patients with HIV because of which two factors?
A. Drug resistant mutants arise too quickly with monotherapy
B. This is cheaper than consecutive treatments with monotherapy
C. HAART is also active versus HTLV-1 and HTLV-II
12. There is no vaccine against HIV because of which of the following?
A. The virus is so antigenically variable
B. Such a vaccine would be too expensive
C. The virus can be controlled by a change in sexual habits
D. Latency can abrogate any vaccine effect
13. A 25-year-old woman presented with fatigue. The only sign on physical examination was pallor. Her Hb was 9.3 g/dl and MCV was 70 fl. Her white cell count was normal and platelets were $550 \times 10^9/l$. Chose the most accurate statement.
A. The most likely diagnosis is megaloblastic anaemia
B. The most likely diagnosis is iron deficiency
C. The most likely diagnosis is thalassaemia
D. An elevated platelet count is common in megaloblastic anaemia
E. Thalassaemia is common in Caucasians
14. Which of the following statements is most likely to be true?
A. To separate iron deficiency from thalassaemia the red cell folate is helpful
B. A normal serum ferritin always excludes iron deficiency
C. Serum iron of $< 10 \text{ lg/l}$ is almost always due to iron deficiency
D. The history is usually very helpful in making a diagnosis of iron deficiency.
E. An elevated platelet count is rare in iron deficiency.
15. A pregnant patient who is a carrier for hemophilia presents for prenatal counseling and delivery planning. Which of the following statements is true
A. Vaginal delivery is recommended based on the low overall risk of bleeding with vaginal delivery in a neonate with severe hemophilia
B. Cesarean delivery is recommended based on the increased risk of intracerebral hemorrhage associated with a trial of labor
C. The patients should have maternal factor levels drawn regardless of planned delivery route

16. Which of the following describes the characteristic lesions of genital herpes
 - A. A single painless ulcer
 - B. Large granulomatous mass
 - C. Multiple indurated papules
 - D. Multiple erythematous plaques
 - E. Multiple grouped vesicles
17. Concerning secondary stage of syphilis one of the following is incorrect:
 - A. There is generalized itchy vesicular rash
 - B. Dark field examination reveals treponema pallidum.
 - C. There is generalized lymphadenopathy
 - D. TPHA test is positive
 - E. The mucus membrane show whitish patches.
18. Minor criteria for clinical diagnosis of AIDS include the following except:
 - A. Oropharyngeal candidiasis.
 - B. Diarrhea > 1 month.
 - C. Recurrent herpes zoster.
 - D. Chronic disseminated herpes simplex.
 - E. Cough > 1 month.
19. The following statement about non- accidental poisoning is true
 - A. 50% of episodes are associated with alcohol intoxication
 - B. Most patients are intent on suicide and do not plan to survive
 - C. Most patients are middle aged or elderly
 - D. Most of the patients repeat self- poisoning within 12 months
20. In the dietary management of diabetes mellitus
 - A. 90% of patients also require hypoglycemic drug therapy
 - B. Ice cream and chocolates should never be consumed
 - C. In obese patients, caloric intake should not exceed 600 kcal/day
 - D. Carbohydrate intakes should be 50-55% of total calorie intake

SECTION B: SHORT ANSWER QUESTIONS (SAQ)

40 MARKS

ANSWER ALL QUESTIONS. EACH QUESTION IS 5 MARKS

1. Mention investigations (and what are you looking for in each) in a case of Suspected hemolytic anemia (5 marks)
2. A 26-year-old Multiparous female presented with pallor and easy fatiguability. Her Hb was 7gm/dl, serum iron was 30 gu/dl and serum ferritin was 40 ng/ml. red blood cells were microcytic.
 - a) What is the likely diagnosis? And why? (3 marks)
 - b) Mention two possible causes for her anemia (2 marks)
3. Discuss the different causes of thrombocytopenia (5 marks)
4. Outline the causes of normocytic anemia (5 marks)
5. Discuss how obesity is associated with type 2 diabetes (5 marks).
6. State five causes of bleeding tendency with normal prothrombin time (5 marks).
7. Discuss the pathophysiology of DIC (5 marks)
8. Mention causes of Pancytopenia (5 marks)

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

40 MARKS

1. Classify bleeding disorders. Discuss the clinical features, diagnosis, and management of Hemophilia. (20 marks)
2. Define Diabetes Mellitus. Discuss in detail about the clinical features, Investigation and Management of Type II Diabetes Mellitus. (20 marks)

