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# MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

**MAIN CAMPUS**

## UNIVERSITY EXAMINATIONS
## 2023/2024 ACADEMIC YEAR

## FOR THE DEGREE
## OF
## FOURTH YEAR FIRST TRIMESTER
## BACHELOR OF CLINICAL MEDICINE AND COMMUNITY HEALTH/PHYSIOTHERAPY

**COURSE CODE:** HCM 468 EXAMS

**COURSE TITLE:** PEDIATRIC AND CHILD HEALTH IV

**DATE:** Tuesday - 5th December 2023 **TIME:** 2:00pm – 4:00pm

INSTRUCTIONS TO CANDIDATES

**Answer all Questions**

Sec A: Multiple Choice Questions (MCQ) 20 Marks
Sec B: Short Answer Questions (SAQ) (40 marks)
Sec C: Long Answer Questions (LAQ ) ( 40 marks)

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating.

This Paper Consists of 5 Printed Pages. Please Turn Over.

**SECTION A: MULTIPLE QUESTIONS (MCQS)** **(20x1=20 MARKS)**

1. All the following are causes oropharyngeal dysphagia **except**
   A. Cerebral palsy
   B. Esophagitis
   C. Brain tumors
   D. Cerebrovascular accidents
   E. Hyperthyroidism
2. Secretory diarrhea can be caused by
   A. Neuroblastoma
   B. Laxative abuse
   C. Lactase deficiency
   D. Irritable bowel syndrome
   E. Thyrotoxicosis
3. Aphthous-like lesions may be associated with the following conditions **except**
   A. Inflammatory bowel disease
   B. Behcet disease
   C. Gluten-sensitive enteropathy
   D. Sweet syndrome
   E. Herpetic gingivostomatitis
4. The following procedures satisfactorily improve gastroesophageal reflux disease (GERD) symptoms in infants **except**
   A. Modified feeding volumes
   B. Hydrolyzed infant formulas
   C. Prone position, when the infant is awake and observed
   D. Avoidance of smoke exposure
5. In a seated position, the most common extraintestinal manifestation of celiac disease is
   A. Osteoporosis
   B. Short stature
   C. Arthritis
   D. Iron-deficiency anemia
   E. Aphthous stomatitis
6. The following infections may cause malabsorption in immunocompromised children **Except**
   A. Shigella
   B. Salmonella
   C. Enteropathogenic E. Coli
   D. Giardia
   E. Rotavirus
7. Management of the diarrhea in chronically malnourished children is based on
   A. Intravenous therapy
   B. Standard osmolarity oral rehydration solutions
   C. Reduced osmolarity oral rehydration solutions

D. Slow resumption of feeds
E. Nothing by mouth for 24 hours

8. The low-osmolality World Health Organization (WHO) oral rehydration solution (ORS) has the following per liter **except**
   A. 75 meq of sodium
   B. 50 meq of chloride
   C. 20 meq of potassium
   D. 75 mmol of glucose
   E. Total osmolarity of 245 mosm
9. The most common hepatobiliary disease associated with inflammatory bowel disease (IBD) is
   A. Hepatic abscess
   B. Portal vein thrombosis
   C. Sclerosing cholangitis
   D. Autoimmune hepatitis
   E. Biliary carcinoma
10. Folic acid deficiency may develop in the following children **except**
   A. A term infant fed on goat`s milk
   B. An infant fed on unfortified powdered milk
   C. An infant fed on pasteurized cow's milk
   D. A child with chronic use of phenytoin anticonvulsant
   E. A child with trimethoprim prophylaxis for recurrent urinary tract infection
11. An extremely high RBC distribution width (RDW) is most likely consistent with
   A. Iron deficiency anemia
   B. Megaloblastic anemia
   C. Sideroblastic anemia
   D. Thalassemia
   E. Sickle cell anemia
12. The least common infection that may occur in a 6-year-old child with sickle cell anemia is:
   A. Pneumococcus sepsis
   B. Hemophilus influenzae meningitis
   C. Salmonella osteomyelitis
   D. E. coli urinary tract infection
   E. Parvovirus B19 aplastic episode
13. All the following are correct regarding treatment of cold agglutinin disease **except:**
   A. Patient should avoid exposure to cold
   B. Patient should be treated for underlying disease
   C. Plasmapheresis is a modality of treatment
   D. Glucocorticoids treatment is a modality of treatment
   E. Patient can be treated by splenectomy when there is no response to other modalities of treatment
14. Parvo virus B19 infection may cause transient pancytopenia in:
   A. Thalassemia major
   B. Sickle cell anemia

C. Hereditary spherocytosis
D. Hereditary elliptocytosis
E. Pyruvate kinase deficiency

15. In hemophilia A, factor VIII level activity should be increased to 100% in:
    A. Epistaxis
    B. Iliopsoas bleeding
    C. Tooth extraction
    D. Hematuria
    E. Gum bleeding
16. The standard care for most children with severe hemophilia is:
    A. Prevention by F VIII replacement therapy to prevent spontaneous bleeding and early joint deformities
    B. Aggressive treatment by F VIII replacement therapy when significant bleeding occurs
    C. Avoid trauma
    D. Avoid aspirin and other NSAIDs
    E. Avoid violent contact sports
17. The most accurate test of thyroid function is:
    A. T4
    B. Free t4
    C. T3
    D. Thyroglobulin
    E. TSH
18. The most common cause of acquired hypothyroidism is:
    A. Craniopharyngioma
    B. Hashimoto thyroiditis
    C. Meningoencephalitis
    D. Drug-induced
    E. Irradiation
19. The first clinical manifestation of acquired hypothyroidism is:
    A. Poor schoolwork
    B. Goiter
    C. Deceleration of growth
    D. Weight gain
    E. Constipation
20. Microvascular complications of DM include:
    A. Nephropathy
    B. Accelerated coronary artery disease
    C. Cerebrovascular disease
    D. Peripheral vascular disease
    E. Peripheral neuropathies

## SECTION B: SHORT ANSWER QUESTIONS (SAQs) (40 MARKS)

1. List 5 causes of macrocytic anemia (5mks)
2. Discuss the pathogenesis of celiac disease (10mks)
3. List 5 causes of secretory diarrhea (5mks)
4. Classify Hemolytic anemia (5mks)
5. State 5 clinical features of congenital hypothyroidism (5mks)
6. Discus mechanisms of chronic diarrhea(10mks)

## SECTION C: LONG ANSWER QUESTIONS (LAQs) (40 MARKS)

1. A 10-year-old boy is brough to outpatient department with history of polyuria, polydipsia, enuresis, weight loss, nausea and vomiting and reduced level of consciousness. On examination, he is dehydrated, has deep signing respiration and fruity smelling breath, Rbs at 28mmol/l.

a) What is the mostly likely diagnosis? (2mks)
b) What are the precipitating factors? (4mks)
c) What's the pathophysiology of the above condition? (4mks)
d) Manage the patient (10mks)

2. In basic life support, discus the initial assessment and management of a child with signs of life (20mks)