

SECTION A: MULTIPLE CHOICE QUESTIONS

1. The newborn medical history has the following components. Which one is not?
 - a) Current antepartum and intrapartum obstetric history
 - b) Paternal occupation
 - c) Maternal past obstetric history
 - d) Maternal and paternal medical and genetic history

2. Predisposing factors to birth trauma includes all of the following except:
 - a) Caesarian section
 - b) Difficult delivery
 - c) Large fetus
 - d) Abnormal presentation

3. Bowel obstruction after the neonatal period can be caused by all of the following except:
 - a) Intussusceptions
 - b) Malnutrition
 - c) Ascariasis
 - d) Adhesions

4. In the management of acute appendicitis in children
 - a) Exploratory laparotomy is indicated when diagnosis of acute appendicitis cannot be ruled out after close observation
 - b) Laparoscopy is never indicated
 - c) Prophylactic antibiotics are never given after the operation
 - d) Laparotomy is indicated in all cases of acute appendicitis

5. Which one of the following features is not a feature of meningitis in infants
 - a) Bulging anterior fontanelle
 - b) Eager to drink
 - c) Irritability
 - d) High pitched cry

6. In the management of blood transfusion reaction, the following should be done except:
- Slow the transfusion
 - Give chlorampheniramine at 0.1mg/kg intramuscular
 - If symptoms persist stop the transfusion
 - Stop blood transfusion in all types of reactions
7. Which of the following is not a cause of haematuria in children
- Beverages
 - Acute glomerulonephritis
 - Trauma
 - Blood disorders
8. The following statements are true concerning growth and development except one. Which one is it?
- A neonate gains 30gms per day
 - A child doubles birth weight by 5 – 6 months
 - A child triples birth weight at 12 months
 - A neonates weight remains constant upto 3 months
9. Which of the following is not true concerning child abuse:
- Majority of the abusers are related caretakers
 - Majority of the abusers are strangers
 - Physical abuse is a form of child abuse
 - Nutritional neglect is also a form of child abuse
10. The following vaccines are given at six (6) weeks after birth. Which one is not?
- Measles
 - Haemophilus influenza type B
 - Pneumococcal vaccine
 - Rotarix

11. Which one the following investigations is not indicated in a child with vitamin D deficiency

- a) X – ray of wrist joint
- b) Serum calcium phosphate
- c) Full haemogram
- d) Alkaline phosphatase

12. The following statements are true concerning nutrient composition of human milk. Which one is not?

- a) It has lower concentrations of highly bio available minerals
- b) It contains relatively high sodium and solute load
- c) It has relatively low but highly bio available protein content
- d) It has adequate quantity of essential fatty acids

13. The following are clinical features of acute otitis media, which one is not?

- a) It is common in adolescents
- b) Loss or impairment of hearing
- c) Pain in the ear
- d) Loss of appetite and fever

14. The following investigations are done in a child with parotid swelling. Which one is not?

- a) Fine needle aspirate for cytology
- b) Open biopsy
- c) Full haemogram
- d) Erythrocyte sedimentation ratio (ESR)

15. Concerning the management of sinusitis in children, which statement is true?

- a) Antibiotics are given in all cases
- b) If nasal discharge is unilateral exclude foreign body
- c) It never requires surgical intervention
- d) Antihistamines play no role

16. Cardiac congenital defects are common in the following syndromes, except

- a) Maternal malnutrition
- b) Down syndrome
- c) Maternal rubella
- d) Fetal alcohol syndrome

17. Complications of Tetralogy of Fallot includes all of the following except:

- a) Cerebral thrombosis
- b) Acute rheumatic fever
- c) Bacterial endocarditis
- d) Congestive heart failure

18. Which one of the following is not necessary as an investigation of acute rheumatic fever

- a) Erythrocyte sedimentation ratio
- b) Throat swab for culture and sensitivity
- c) Chest X – ray
- d) Urinalysis

19. Which of the following statements is not true concerning intussusceptions?

- a) Is the most frequent cause of intestinal obstruction the first two (2) years of life
- b) Is more common in females than males
- c) The cause is not apparent
- d) Necrosis of the intussuscepted ileum may occur

20. Which one of the following is not a differential diagnosis of diarrhoea in children?

- a) Dysentery
- b) Cholera
- c) Aganglionic megacolon
- d) Intussusceptions

21. Complications of diarrhoea includes all of the following; which one is not?

- a) Electrolyte imbalance
- b) Hyperglycaemia
- c) Rectal prolapse
- d) Convulsions

22. Choose the correct statement concerning neuroblastoma.

- a) Only 25% of the cases present with abdominal pains
- b) It has minimal chances of metastasis
- c) Three year event free survival rate is less than 15%.
- d) 90% of the cases are diagnosed after 5 years of life.

23. Which of the following conditions is not a differential diagnosis in a child presenting with a cough?

- a) Severe malnutrition
- b) Bronchiolitis
- c) Asthma
- d) Tuberculosis

24. Which of the following statements is not true concerning bronchiolitis

- a) Is an upper respiratory infection
- b) It occurs in annual epidemics
- c) Is characterised by airway obstruction and wheezing
- d) Is commonly caused by respiratory syncytial virus

25. Which of the following conditions listed below is not a complication of cryptococcal meningitis

- a) Sensory hearing loss
- b) Convulsions
- c) Severe malnutrition
- d) Epilepsy

26. Which bacteria below is the commonest cause of urinary tract infection in children?

- a) Klebsiella
- b) Proteus vulgaris
- c) Escherichia coli
- d) Streptococcus faecalis

27. While treating a patient with chronic renal failure the following can be done

- a) Transfuse with packed cells if Haemoglobin level is $< 6\text{g/dl}$
- b) Transfuse with whole blood if haemoglobin level is $< 6\text{g/dl}$
- c) Give potassium containing foods in plenty
- d) Diet should not be adjusted

28. One of the investigations below is not mandatory in patients who have seizure activity

- a) Electroencephalography
- b) Lumbar puncture
- c) Blood sugars
- d) Electrocardiography

29. The statements below explain the features of status epilepticus except:

- a) A succession of seizures without regaining consciousness between attacks
- b) One prolonged convulsion lasting $< 30\text{mins}$
- c) It can result in respiratory embarrassment
- d) Hypoglycaemia is a consequence

30. Which of the conditions below is not a cause of cerebral palsy

- a. Rubella
- b. Asphyxia
- c. Bilirubin encephalopathy
- d. Pneumonia

SECTION B: TRUE/FALSE QUESTIONS

1. In a hospital setting the stages of management of any child are:
 - a) Emergency triage
 - b) Emergency treatment
 - c) Taking history
 - d) Admitting all children with fever
 - e) Start all children with fever on paracetamol

2. Fever with localising signs could be due to:
 - a) Malaria
 - b) Septicaemia
 - c) Urinary tract infection
 - d) Throat infection
 - e) Pneumonia

3. In the management of complicated malaria in children:
 - a) Loading dose of IV/IM quinine of 15mg/kg is given
 - b) Transfusion with blood is never indicated
 - c) Treatment of hypoglycaemia is mandatory
 - d) All children are given AL as the first line drug
 - e) Maintenance of fluids and feeds should be provided.

4. In pyogenic meningitis, cerebral spinal fluid (CSF) has the following characteristics:
 - a) Cloudy in color
 - b) Protein is $<0.4\text{gm/l}$
 - c) Sugar is $>2.5\text{ mmol/l}$
 - d) Polymorphs are in hundreds to thousands
 - e) Protein is high

- 5 Neonatal asphyxia can complicate to:
- Respiratory distress
 - Convulsions
 - Cerebral palsy
 - Hyperglycaemia
 - Diabetes mellitus
- 6 In the management of spina bifida cystica
- A surgeon will be involved in the management
 - It takes a multidisciplinary approach
 - An abdominal ultra sound is not necessary
 - A paediatrician will be involved in the management
 - A physiotherapist will be involved in the care
- 7 Concerning epistaxis in children
- Bleeding is always due to trauma
 - Any child with uncontrollable bleeding is admitted
 - A child may require fluid replacement or blood transfusion
 - All the children with epistaxis require admission
 - It is always due to a foreign body in the nostril
- 8 Complications of typhoid fever in children include
- Convulsions
 - Hyperglycaemia
 - Perforation
 - Mental retardation
 - Chronic carrier state

9 Which of the following statements is True or False concerning Tb in children?

- a) Full course of treatment is given to all confirmed cases only
- b) Strongly suspected cases of TB are given a full course of treatment
- c) The intensive phase of treatment is four months
- d) HIV status should be confirmed in all children with Tb
- e) Streptomycin should be reserve for multi- drug resistant TB

10 Concerning congenital syphilis

- a) Infant may appear normal for the first few weeks of life
- b) It is not preventable
- c) Child will present with syphilitic rhinitis
- d) Child will have lymphadenopathy
- e) Laboratory investigations will yield no results

11 Oxygen administration is important in paediatric care. The following gives an approximate O_2 inspired by a child depending with the means of delivery used

- a) Nasal prongs.....approximately 30 – 35%
- b) Naso pharyngeal catheter.....approximately 90%
- c) Plain good fitting oxygen face maskapproximately 40 – 60%
- d) Oxygen face mask with reservoir.....approximately 50%
- e) Short nasal catheterapproximately 20%

12 When admitting a child with severe acute malnutrition, the key clinical features for admission are:

- a) Oedema of both feet
- b) Weight and height
- c) Visible severe wasting
- d) MUAC
- e) Flaky paint dermatoses

13 In the prevention of diarrhoeal diseases:

- a) Proper sanitation must be ensured
- b) Good hygiene must be observed only when preparing the food
- c) Good hygiene must be observed only when storing the food
- d) Proper disposal of faeces is a must
- e) Clean utensils must be used to store the food

14 In the prevention of pneumocystis jiroveci pneumonia:

- a) Co-trimoxazole is the drug of choice
- b) Amoxicillin is the drug of choice
- c) Erythromycin is the drug of choice
- d) Dapsone is the drug of choice
- e) There is no available vaccine

15 A child with congenital hypothyroidism:

- a) Will present with exophthalmos
- b) Failure to thrive will be a presenting feature
- c) Prolonged jaundice will be a presentation
- d) Most neonates will have presenting features at birth
- e) Diagnosis is made through high index of suspicion

16 In the correction of acidosis in diabetic keto acidosis children:

- a) Sodium bicarbonate is always indicated
- b) Not necessary if there is improvement after initial rehydration
- c) Sodium bicarbonate may cause CNS acidosis if not given cautiously
- d) Is necessary if serum potassium is >4 mmol/l
- e) Is necessary if pH is <7.0

17 Differential diagnosis of parotitis includes:

- a) Cervical adenitis
- b) Leukaemia
- c) Dental infections
- d) Tb adenitis
- e) Tumours of the adenoids

18 Differential diagnosis of a floppy infant include:

- a) Malnutrition
- b) Metabolic disease
- c) Turner syndrome
- d) Down syndrome
- e) Underweight

19 The discharge and follow up guidelines of low birth weight infants are as follows:

- a) They should have more than one danger signs
- b) They should be gaining weight on breastfeeding alone
- c) They should maintain their temperature within the normal range in an open cot
- d) The mother should be confident and able to care for the infant
- e) The baby should have attained ≥ 1.8 kg

20 The 1st line treatment for HIV/AIDS regimens for children below three years are:

- a) Abacavir/lamuvudine/lopinavir/ritonavir
- b) Zidovudine/lamuvudine/lopinavir/ritonavir
- c) Abacavir/lamuvudine/nevirapine
- d) Abacavir/lamuvudine/efavirenz
- e) Zidovudine/lamuvudine/nevirapine

21 Suspect HIV infection strongly if the following conditions are present

- a) Pneumocystis jiroveci
- b) Oesophageal candidiasis
- c) Oral candidiasis in below 2 months old child
- d) Acquired recto-vaginal fistilua in girls
- e) Kaposis sarcoma

- 22 Which of the following features below is/are suggestive of neonatal sepsis?
- No spontaneous movement
 - Good ability to feed
 - Convulsions
 - Apnoea
 - Abnormal movements
- 23 Signs of severe illness in a neonate are:
- Localised severe infection
 - Prolonged premature rupture of membranes
 - Weight loss
 - Jaundice
 - Capillary refill >3 seconds
- 24 A newborn weighing $\geq 1.5\text{kg}$ the feeding/fluid requirement is as follows:
- In a well baby, feed immediately with 7.5 mls and increase by the same amount till a full day volume is reached
 - Start a sick baby on 10% dextrose on day 1 for 24 hrs
 - If the baby is just unwell, start NGT feeding on day 1
 - If the baby is on IV fluids, in day 2, use 2 parts of 10% dextrose to 1 part of half strength darrows solution
 - Expressed breast milk is not mandatory
- 25 During neonatal resuscitation
- Meconium aspiration has nothing to do with the baby not breathing at all
 - If the baby has meconium aspiration dry and stimulate fast then do suction
 - Breathing of a newborn should be started within 60 seconds
 - If anything is visible in the airway use suction to clear
 - The baby's head should be put in neutral position

26. The following are anxiety disorders in children and adolescents

- a) Separation anxiety
- b) Phobia
- c) Post traumatic stress disorder
- d) Mania
- e) Schizophrenia

27. The management of conversion syndromes includes

- a) Reprimanding the child to stop pretending
- b) Threatening the patient to see if there is a change in behaviour
- c) Take a good psychiatric history to reveal the source of conflict
- d) Thorough physical examination to exclude an organic problem
- e) Counselling and behaviour modification

28. The management of conduct disorders involve

- a) Behaviour modification
- b) Mentorship recreational programmes
- c) Legal sanctions
- d) Involvement of family
- e) Involvement of relevant authorities

29. Clinical features of sickle cell disease include

- a) The disease starts at the age of 6 years
- b) Foot and mouth syndrome
- c) Impaired growth and development
- d) Acute chest syndrome
- e) Stroke

30. Further measures on the management of sickle cell disease crises include

- a) Give intravenous fluids
- b) Infections should be left alone for they have no harm
- c) Children with moderate to severe pain should be given dihydrocodeine or codeine phosphate
- d) Ibuprofen is preserved for severe pain
- e) Hydroxyl urea is a very strong analgesia for sickle cell disease

SECTION A: SHORT ESSAY QUESTIONS - Answer ALL questions.

1. State any five common birth injuries giving the definitive treatment for each injury mentioned. **(10 marks)**

2. A fourteen months old baby is brought to you with history of cough, difficulty in breathing and inability to breastfeed. On examination you find the child to be in severe respiratory distress with a respiratory rate of 60 breaths/min.
 - a. Using WHO classification, classify the baby's condition. **(2 marks)**
 - b. List down any four differential diagnoses for this condition. **(4 marks)**
 - c. Name any four complications for the condition. **(4 marks)**

3. A seven year old boy has been on follow-up in paediatric outpatient clinic for rheumatic heart disease. He is brought to you today with history of sudden onset of hotness of the body, general malaise and some joint pains. On examination you get an added murmur and hepato-splenomegally.
 - a. What is the most probable diagnosis? **(2 marks)**
 - b. List down any five investigations that you will order for this child. **(5 marks)**
 - c. List any three factors that are associated with poor prognosis in children with above condition. **(3 marks)**

4. A four years old girl is brought to you with history of headache, puffiness of face which is worse in the morning and passage of tea coloured urine which is reduced in volume. The child is said to have been treated for a sore throat two weeks prior to the onset of above complaints.
 - a. Mention any five investigations that you will carry out in this child. **(5 marks)**
 - b. Manage this child. **(5 marks)**

5. A known diabetic class eight pupil is brought to you in coma. You gather from the history that the child has had excessive thirst, increased frequency of micturation and very high appetite with loss of weight.
 - a. What is your impression? **(2marks)**
 - b. Manage this child. **(8 marks)**

6. Draw a table showing the Kenya expanded program of immunisation (KEPI) under the following headings: vaccine, age, route of administration and dose. **(10 marks)**

SECTION B: LONG ESSAY QUESTIONS - ANSWER 2 QUESTIONS ONLY

1. While working in maternity you receive a newborn who has just been delivered and has not cried immediately after birth. The APGAR score assessment is less than **three**. You decide to resuscitate the newborn. Write the steps of neonatal resuscitation explaining what you are doing at each point. (20 marks)

2. A six year old child presents with fever, inability to drink for three days. Your assessment reveals the AVPU to be at P, no neck stiffness, severe pallor and kerning sign negative. (2 marks)
 - a. What is the most likely diagnosis? (3 marks)
 - b. What investigations will you carry out? (15 marks)
 - c. Write a treatment plan for this patient

3. State the management of a known sickler who presents with severe pallor and very painful joints. The child is 12 years old (20 marks)