**NYAISHOZI COLLEGE OF HEALTH AND ALLIED SCIENCES**

**ready**

**BASIC CERTIFICATEIN CLINICAL MEDICINE (NTA LEVEL5)**

**SEMISTER 1**

**CONTINOUS ASSESSMENT CAT 1**

**MODULE CODE: CMT05211**

**MODULE NAME: PAEDAITRIC AND CHILD HEALTH**

**TIME: 2:30 HOURS DATE: ………………………….**

**GENERALINSTUCTIONS:**

1. **Read all the questions carefully.**
2. **Write your Registration number and NACTE registration number on each page you use.**
3. **Attempt all questions. The responses should be written in spaces provided as instructed in each section.**
4. **Cellular phones and unauthorized materials are NOT allowed in the Examination Room.**
5. **Each essay question to be answered on not more than 2 written pages.**
6. **No addition answer sheets would be provided**
7. **Failure to follow instructions will lead to loss of marks**
8. **The paper consists of FIVE (5) sections.**
9. **Observe all College examination regulations**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SECTION** | **TYPEOFQUESTIONS** | **MARKS**  **ALLOCATION** | **SCORED**  **MARKS** | **INITIALSIGNATUREOF EXAMINATION MARKER** | **INITIAL SIGNATURE OF EXAMINATION VERIFIER** |
| **A** | **MULTIPLE CHOICE** | **30** |  |  |  |
| **B** | **MULTIPLETRUE/FALSE** | **10** |  |  |  |
| **C** | **MATCHING** | **10** |  |  |  |
| **D** | **SHORT ANSWER** | **30** |  |  |  |
| **E** | **GUIDEDESSAY** | **30** |  |  |  |
| **TOTAL** |  | **100** |  |  |  |

**SECTION A: MULTIPLE CHOICE QUESTIONS (30 marks)**

* **This section consists of thirty (30) questions with five (5) options each.**
* **Circle the letter of the most correct answer, there is only one correct answer.**
* **One mark (1) will be awarded for each correct response**

1. You are working at a dispensary and 6 years old boy is brought with history of diarrhea for the past 18 days. The child is fully conscious not wasted, drinks normally skin pinch goes back slowly. What is the most likely diagnosis**?**
2. Acute watery diarrhea with severe dehydration
3. Acute watery diarrhea with no dehydration
4. Non severe persistent diarrhea
5. Acute watery diarrhea with some dehydration
6. Severe persistent diarrhea
7. 5 years old presents with history of cough and difficulty in breathing. On examination has temperature 37.8, respiratory 42 breaths per minute, lower chest wall in drawing and crepitation’s on the right intrascapular region. What is the most likely diagnosis?
8. Pneumonia
9. Severe bronchiolitis
10. Severe pneumonia
11. Severe bronchial asthma
12. Viral croup
13. A 4-month-old boy present at Health Centre with complaint of wheezing. The father has given two puff of salbutamol inhaler, but the difficulty in breathing has not improved significantly. Upon examination of the child, he is pale and peripheral cyanosis. Respiratory rate 60 breaths/min and loud wheezes throughout the chest that obscure the heart sound. Which of the following is the most likely diagnosis**?**
14. Pneumonia
15. Bronchial asthma
16. Cystic fibrosis
17. Bronchiolitis
18. Gastro esophageal reflux

1. A 5 years old child presents with areas of alopecia and pustules on the scalp. He reports history of itching in the affected areas. What is the most likely diagnosis**?**
2. Tinea unguium
3. Tinea capitis
4. Tinea corporis
5. Tinea versicolor
6. Tinea cruris
7. 1 week old child born after prolonged labour presents with convulsions, lethargy, neck stiffness and bulging of fontanels. What is the most likely cause of the above condition**?**
8. Group B Streptococcus spp
9. Haemophilus influenza
10. Streptococcus pneumonia
11. Neisseria meningitides
12. Mycobacterium tuberculosis
13. 2 years well-nourished presents history of watery stool for the past 4 days. On examination he is lethargic and unable to drink with sunken eyes. What is the correct management of this child**?**
14. Intravenous dextrose 30mls/kg for the first 30 minutes and 70 mls/kg for the next two and half hours
15. Intravenous dextrose 30mls/kg for the first 1 hour and 70 mls/kg for the next five hours
16. Intravenous ringers lactate 30mls/kg for the first one hour and 70 mls/kg for the next 5 hours
17. Hypertonic saline 30mls/kg for the first 30 minutes and 70 mls/kg for the next two and half hours
18. Intravenous ringers lactate 30 mls/kg for the first 30 minutes and 70 mls/kg for the next two and half hours
19. 15 years old presents at a facility with fever, joint pain and headache, on examination he is ill looking, febrile (T- 37.9oC). MRDT- negative, serological test for dengue antibodies is positive. Which of the following is correct about the diagnosis and management of this patient?
20. The disease is transmitted by a culex mosquito
21. Raised hematocrit is a poor prognostic factor
22. Aides mosquitoes bite during night time
23. It is recommended to use NSAIDs for pain control
24. There is no role of serological tests in the diagnosis
25. A 2 year old sick child is brought to where you are working with history of fever and vomiting for the past two days. On examination you find that he is weak, slightly dehydrated and unable to feed. Emergency investigations show that blood glucose is normal and has no anemia. What could be the most useful procedure to ensure that the child is fed well during the stated ill-health**?**
    1. Oxygen administration
    2. Cardiopulmonary resuscitation
    3. Nasogastric tube insertion
    4. Insertion of a cannula
    5. Ascitic fluid tapping
26. A 2 years old child suddenly develops inspiratory stridor, tachypnea and chest retractions. He had been playing with his 6 year old brother before this episode. He is afebrile, other parameters of physical examination are normal. A chest radiograph reveals no abnormalities**.**

Which of the following is the best first line management**?**

1. Do ventilation by ambu bag
2. Evaluate the airway for obstruction
3. Administer oral dexamethasone
4. Administer parenteral antibiotic
5. Administer nebulized salbutamol
6. A baby who is born and developed severe birth asphyxias is likely to suffer from the following**:-**
7. Necrotizing enterrocolitis if is fed orally
8. Intracerebral bleeding
9. Acute renal failure
10. Cerebral palsy
11. All of the above
12. with normal developmental milestone the child is expected to sit unsupported at the age range of**:-**
13. 5 – 7 months
14. 12 – 18 months
15. 9 – 12 months
16. 24 months
17. 2 – 3 months
18. A child 10 kgs, is brought to the Health center with diarrhea and vomiting. On examination he is found to have some dehydration. Which fluid will you choose for him:-
19. Clean boiled tape water to be given orally
20. Darrow’s solution to be given i/v
21. Half strength Darrow’s solution to be given i/v
22. Half strength dextrose saline solution i/v
23. Glucose based ORS
24. A 2 years old child was diagnosed to have chronic ear infection the best treatment at the dispensary will be**:-**
25. Give systemic antibiotic for 5 days
26. Refer URGENTLY to hospital
27. Dry the ear by wicking and follow up after 5 days
28. Assurance and no additional treatment
29. Give antibiotic and paracetamol for pain
30. Absolute contraindication to breast milk feeding is:-
31. Gross pre maturity or sucking difficulties
32. Local conditions such as abscess or cracked nipple
33. Mother known to be HIV positive
34. Maternal tuberculosis, leprosy, malignancy or beriberi
35. None of the above
36. The following are complications of measles EXCEPT,
37. Cancrum oris
38. Keratomalasia
39. Osteomyelitis
40. Encephalitis
41. Pneumonia
42. Which of the following statements are true concerning antibiotics:-
43. Children with bloody diarrhea should receive an antibiotic
44. Children with diarrhea due to salmonella infection should receive an antibiotic
45. Children with diarrhea, abdominal pain and high fever should receive an antibiotic
46. Treatment for shigella should start after the culture and sensitivity results
47. All the above are true
48. The prodromal stage of measles is characterized by:
49. Appearance of koplik’s spots in the buccal cavity
50. Macula papular rashes on the body
51. Persistent high grade fever
52. Sub conjunctivae hemorrhage
53. Severe respiratory tract infection
54. Which of the following entries concerning Score O in Apgar scoring system is not correct:-
55. Appearance: Blue or pale
56. Pulse: Less than 100 beats/minutes
57. Grimace: Nil
58. Activity and tone: Limp
59. Respiration: Nil
60. The following are complications of newborn after 24hrs of been born EXCEPT**;**
61. Umbilical sepsis
62. Tetanus neonatorum
63. Septicemia
64. All of the above are true
65. none
66. All of the following drugs used for treatment of tuberculosis are bactericidal EXCEPT:
67. Rifampicin
68. Isoniazid
69. Pyrazinamide
70. Ethambutol
71. Streptomycin

**SECTION B: TRUE AND FALSE QUESTIONS (10 MARKS)**

**INSTRUCTIONS**

* **This section consists of four (4) questions with five (5) options each.**
* **Write the word TRUE for correct statement and word FALSE for wrong statement in the space provided. DO NOT write letter T or F**
* **Half mark (1/2) will be awarded for each correct response.**
* **Answers written as T/F will not be awarded any mark**

1. Regarding cerebral spinal fluid analysis in meningitis.
2. Cerebral spinal fluid is cloudy in viral meningitis ………………..…………….
3. Protein level is elevated in viral meningitis………………………..……………..
4. Glucose level is decreased in bacterial meningitis……………………………..
5. Glucose- CSF: Serum ratio is < 0.4 in viral meningitis.............................
6. Gram stain is positive in bacterial meningitis………………………….…………..
7. Regarding Tetanus
8. Symptoms are due to inhibition of GABA release ……………………….…..
9. Acquired by oral route …………………………………………………………………….
10. Acquired by respiratory droplets ………………………….……………………….…
11. Patients are treated in a room with enough bright light …………………..
12. It is caused by a gram positive bacteria …………………………………………….
13. Regarding Dengue fever
14. Elevated hematocrit is a good prognostic factor……………………….. ………..
15. The virus is transmitted by a culex mosquito…………………………………….…..
16. Non-steroidal anti-inflammatory drugs are contraindicated………………….
17. Dengue causes shock……………………………………………………………………………..
18. Retro orbital eye pain is a symptom of dengue ……………………………………..
19. Regarding common cold:
20. Group B streptococcus is most common aetiology………………………..
21. Prevalence higher during cold weather…………………………………….
22. Neck stiffness is a common symptom……………………………...………
23. Children are treated with cough syrup……………………………………..
24. Chest x ray is done to confirm diagnosis……………………………...……

**SECTION C:** **MATCHING QUESTIONS (10 marks)**

**INSTRUCTIONS:**

* **This section consists of two (2) matching items questions with five (5) questions each.**
* **Each item from column B must be used only once.**
* **One mark (1) will be awarded for each correct response.**

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1. Match the dermatophyte in column A with its explanation in column B

|  |  |
| --- | --- |
| **COLUMNA : DERMATOPHYTE** | **COLUMN B: EXPLANATION** |
| [\_\_\_\_] Tinia capitis | **A**: characterized by patchy hair loss affecting the scalp and eyebrows |
| [\_\_\_\_] Tinia corporis | **B**: Affects visceral organs |
| [\_\_\_\_] Tinia inguium | **C**: Dermatophyte with lesion occurring in a ring form |
| [\_\_\_\_] Tinia cruris | **D**: is a dermatophyte infection of the finger nails and toe nails. |
| [\_\_\_\_] Tinia vesicolor | **E**: Mainly affects the brain |
|  | **F**:affects the skin on the trunk and proximal extremities, the lesions are either hypo pigmented or hyper pigmented |
|  | **G**: It is a superficial bacterial infection |
|  | **H**: is a dermatophyte, a type of fungal infection of the groin region |

1. **Match the disease in column A with its sign or symptom in column B**

|  |  |
| --- | --- |
| **Column A**  **DISEASE** | **Column B**  **SIGN OR SYMPTOM** |
| [\_\_\_\_] Croup | 1. Wheezing |
| [\_\_\_\_] Meningitis | 1. Back pain |
| [\_\_\_\_] Bronchiolitis | 1. Barking cough |
| [\_\_\_\_]diarrhea | 1. Bleeding |
| [\_\_\_\_]scabies | 1. Ear discharge |
|  | 1. Lethargy |
|  | 1. Itching in finger webs |
|  | 1. Positive brudzinski sign |

**SECTION D: SHORT ANSWER QUESTIONS (30 marks)**

**INSTRUCTIONS**:

* **This section consists of six (6) questions.**
* **Write your answer in the space provided**
* **Marks to be awarded for each correct response are shown to specific question.**

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1. 6 years boy develops weakness of the left leg that progressively increases in severity, it is reported that he often drinks water from the river which is never boiled. Physical examination reveals atrophy of the left leg with a muscle power of grade zero (0) in all muscle groups of the left leg.
2. What is the most likely diagnosis (1 mark)

…………………………………………………………………………………………..

1. Mention three forms of this disease? ( 3 marks)
2. ……………………………………………………………………………………………..
3. ……………………………………………………………………………………………..
4. ……………………………………………………………………………………………..
5. How can the following disease be prevented ( 1 mark)

……………………………………………………………………………………………………

1. You are working at Bunju dispensary and a nine months old baby is brought with history of wheezing and difficult in breathing, mother reports that this is the first episode of wheezing, nebulized salbutamol is given with no relief. Child has oxygen saturation of 89% on room air, respiratory rate 63 breath per minute and temperature 37.8Oc.
2. What is the most likely diagnosis? ( 1 mark)

…………………………………………………………………………………………..

1. What is the most likely cause of this condition? ( 1 mark)

…………………………………………………………………………………………..

1. How are you going to treat this patient? ( 3 marks)
2. …………………………………………………………………………………………..
3. …………………………………………………………………………………………..
4. …………………………………………………………………………………………..
5. 2 years old presents with fever, difficulty in breathing and a barking cough. On examination he has stridor at rest, respiratory rate of 53 breath per minute, lower chest wall in drawing and oxygen saturation 80% on room air.
6. What is the most likely diagnosis? (1 mark)

…………………………………………………………………………………………..

1. How are you going to treat this patient? ( 4 marks)
2. …………………………………………………………………………………………..
3. …………………………………………………………………………………………..
4. …………………………………………………………………………………………..
5. …………………………………………………………………………………………..
6. 10 years old presents with loose stool for 18 days. On examination he is alert, skin pinch goes back in 2 seconds and drinks normally.
7. What is the most likely diagnosis? (1 mark)

…………………………………………………………………………………………..

1. Mention 4 causes of the above condition ( 4 marks)
2. …………………………………………………………………………………………..
3. …………………………………………………………………………………………..
4. …………………………………………………………………………………………..
5. …………………………………………………………………………………………..
6. 6 months old baby is brought with history of watery stool for 3 days. On examination, the baby is alert, normal eyes and normal skin pinch. Respiratory rate pulse and temperature are normal.
7. What is the most likely diagnosis? ( 1 mark)

…………………………………………………………………………………………..

1. Mention four aspects that the mother should be counselor about in the management of this condition at home ( 4 marks)
2. …………………………………………………………………………………………..
3. …………………………………………………………………………………………..
4. …………………………………………………………………………………………..
5. …………………………………………………………………………………………..
6. 8 years old is brought with history of fever, cough and difficulty in breathing. On examination he is alert, body temperature 38, respiratory rate 54 breaths per minute, oxygen saturation 95% on room air. Auscultation reveals crepitation on the left inframammary region.
7. What is the most likely diagnosis? ( 1 mark)

…………………………………………………………………………………………..

1. Mention two differential diagnosis ( 2 marks)
2. …………………………………………………………………………………………..
3. …………………………………………………………………………………………..
4. How are you going to treat this patient ( 2 marks)
5. …………………………………………………………………………………………..
6. …………………………………………………………………………………………..

**SECTION E: GUIDED ESSAY QUESTIONS (30 marks)**

**INSTRUCTIONS**

* **This section consists of two (2) questions which are supposed to be answered in a NARRATIVE way**
* **Answer both questions.**
* **Each question must start on a new page**
* **Bulleting and numbering is NOT ALLOWED.**
* **Write your answer on the empty pages of this question paper**

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1. A 1 year old boy is brought to the hospital by his mother after he presented with cough for 4days and difficult breathing for 1 day. On examination he had cyanosis, lower chest in drawing, and crepitation on the right infrascapular region. The temperature of 38oC, oxygen saturation of 86% on room air. Explain the management of this patient? ( 15 marks)
2. A 1 years old child presents with history of high grade fever and 2 episodes of convulsions. On examination he is febrile (390C), unconscious, high pitched cry, bulging of fontanels and opithotonus posture. Discuss the management of this child in terms of provision diagnosis, differential diagnosis, investigations, treatment and complications. ( 15 marks)