

UNIVERSITY OF ESWATINI
FACULTY OF HEALTH SCIENCES - GENERAL NURSING SCIENCE
MNSc FAMILY NURSE PRACTITIONER PROGRAMME

TITLE OF COURSE: FAMILY NURSE PRACTICE OF THE CHILD AND ADOLESCENT

COURSE CODE: GNS607

TIME ALLOWED: THREE (3) HOURS

PAGES: 15 INCLUDING COVER PAGE

MARKS: 100

INSTRUCTIONS:

- **THERE ARE FIVE (5) QUESTIONS IN THIS EXAM. ANSWER ALL FIVE (5) QUESTIONS.**
- **START EACH QUESTION ON A NEW PAGE.**
- **WRITE LEGIBLY**

THIS PAPER IS NOT TO BE OPENED UNTIL THE INVIGILATOR HAS GRANTED PERMISSION.

CHOOSE THE **ONE BEST ANSWER** FOR EACH QUESTION. INDICATE THE NUMBER OF THE QUESTION ON YOUR EXAM BOOKLET FOLLOWED BY YOUR CHOICE, E.G. 1. A. ONE MARK EACH.

1. When counselling an adolescent on avoiding HIV, what is the best approach?
 - A. Include the parent.
 - B. Emphasize abstinence.
 - C. Be alert to both verbal and non-verbal cues.
 - D. Treat the client as an adult.

2. 16-year-old Thandi, who is HIV positive, has a viral load of zero (0). When is her next viral load due?
 - A. 3 months
 - B. 6 months.
 - C. 9 months.
 - D. 1 year.

3. According to the 2018 Swaziland Integrated HIV Management Guidelines a child should be fully informed of his or her HIV status by the age of 10 years. Who is the best person to disclose the status?
 - A. The doctor.
 - B. Any qualified health professional.
 - C. The person who performed the test.
 - D. The parent, guardian, or caregiver.

4. The rate of bronchiolitis is highest in which age group?
- A. Toddlers.
 - B. School-aged children.
 - C. Preschool children.
 - D. Infants younger than two years old.
5. The two immunizations given at birth in Eswatini are:
- A. Hib and rotavirus.
 - B. Rotavirus and OPV.
 - C. OPV and Hep B.
 - D. BCG and OPV.
6. Faith is a 10-year-old who has failed both first and second-line ART. Prior to starting third line which test must you order?
- A. Full blood count.
 - B. Chest X-ray.
 - C. Genotypic/phenotypic resistance testing.
 - D. Full psychometric testing.
7. Sifiso is a three-year old with 48-hour history of upper respiratory symptoms and fever of 39°C with pain in his left ear starting 8 hours ago. He weighs 20 kg. Which is the best initial treatment?
- A. Amoxicillin 160 mg twice a day for 5 days; symptomatic treatment for his fever and pain.
 - B. Paracetamol 125 mg orally every 4 hours alternating with aspirin 125 mg orally every four hours.
 - C. Ciprofloxacin 250 mg orally three times a day for 10 days.
 - D. Nitrofurantoin 125 mg orally twice a day for 10 days.

8. Sihle is a 5-year-old girl who is HIV+. She weighs 15 Kg. You treated her for pneumonia with Amoxicillin 250 mg tablet twice daily. After two days she returns to the clinic with a temperature of 38° C and respiratory rate of 44 breaths per minute. According to the 2018 Swaziland Integrated HIV Guidelines, what is your next best action?

- A. Double the dose of amoxicillin.
- B. Add erythromycin, since this is likely an atypical pneumonia.
- C. Reassure her mother that more time on the antibiotic is needed to see an improvement.
- D. Screen for TB, PJP, interstitial lymphoid pneumonitis, or asthma.

9. According to The 2018 Swaziland Integrated HIV Guidelines, prophylactic TB treatment should be started for which group(s) of children?

- A. All children on aged 12 years and over on ART and all children under 12 years on ART with a history of TB exposure.
- B. All children on ART.
- C. All children with a history of exposure to TB.
- D. All children who screen positive according to the National TB Symptom Screening tool.

10. The duration of INH prophylaxis for children for latent TB infection is

- A. One year.
- B. At least 6 months.
- C. Variable according to the age of the child.
- D. Dependent upon the experience of the prescriber.

11. All children and adolescents diagnosed with HIV should receive Co-trimoxazole Preventive Therapy (CPT) at a dose appropriate to their weight and age. Which of the following is an indication that the treatment can be discontinued?
- A. The treatment has been continuous for at least 6 months.
 - B. The parent gives permission to stop treatment.
 - C. The pill burden becomes so high that the child might lapse treatment.
 - D. CD4 count is greater than 350 cells/mm³, undetectable viral load and no opportunistic infections
12. Which of the following best describes the pathophysiology and resulting clinical presentation of asthma?
- A. Intermittent airway inflammation with occasional bronchospasm.
 - B. A disease of bronchospasm leading to airway inflammation.
 - C. Chronic airway inflammation with intermittent bronchospasm.
 - D. Relatively fixed airway constriction.
13. According to the Global Initiative for Asthma (GINA) Guidelines, the first step in asthma treatment includes which of the following?
- A. Daily low-dose inhaled cortico-steroid.
 - B. Daily theophylline tablets.
 - C. Intermittent use of high-dose steroids.
 - D. Bronchodilator therapy by nebulization.
14. The rotavirus vaccine is not given before 6 weeks of age or after 23 months to limit the risk of which complication?
- A. Local erythema and tenderness.
 - B. Intussusception.
 - C. Anaphylaxis.
 - D. Fever greater than 40° C.

15. Which of the following is considered when prescribing rehydration therapy for a child with moderate dehydration?
- A. Intravenous (IV) fluid therapy is the preferred route according to the Standard Treatment Guidelines.
 - B. The child should be admitted to the hospital.
 - C. Oral rehydration therapy is as effective and less costly when compared to IV therapy.
 - D. Fluid replacement should consist of 10-20 ml/kg over 3-4 hours.
16. In considering male secondary characteristics, increase in penile length but minimal change in width; further scrotal enlargement; public hair covering a greater area and the onset of the growth spurt occur at which Tanner Stage?
- A. 1
 - B. 2
 - C. 3
 - D. 4
17. Eczema is thought to be caused by
- A. Overactive mucus glands.
 - B. Allergic reaction.
 - C. Degradation of the mast cells.
 - D. Dry air.
18. You are examining a 9-month-old infant. You would expect that the child is able to
- A. Walk.
 - B. play with other children.
 - C. Sit independently.
 - D. Undress himself.

19. A healthy 6-7-month-old infant should be able to:

- A. Roll from back to stomach.
- B. Say a word or two.
- C. Feed herself a cracker.
- D. Crawl on abdomen.

20. Which of the following is a risk factor for type 1 diabetes mellitus?

- A. Obesity.
- B. Recent viral infection.
- C. High dietary sugar intake.
- D. Family history of diabetes.

21. Type 1 diabetes mellitus is characterized by:

- A. Lack of insulin due to destruction of the beta cells of the pancreas.
- B. The body's inability to use the insulin it has created.
- C. Inconsistent use of insulin.
- D. High metabolism of insulin in the body.

22. Kwashiorkor is defined as

- A. Inadequate calorie intake.
- B. Inadequate protein intake.
- C. Inadequate intake of both protein and calories.
- D. Inadequate intake of vitamins.

23. Marasmus is defined as

- A. Inadequate calorie intake.
- B. Inadequate protein intake.
- C. Inadequate intake of both protein and calories.
- D. Inadequate intake of vitamins.

24. The incubation period for measles, or rubeola, is:
- A. 7-10 days
 - B. 10-14 days
 - C. 1-2 weeks
 - D. 2-3 weeks.
25. A 4-year-old child presents with fever, exudative pharyngitis, anterior cervical lymphadenopathy and a fine, raised pink rash, The most likely diagnosis is:
- A. Scarlet fever.
 - B. Roseola.
 - C. Rubella.
 - D. Rubeola.
26. Which is the typical pattern of the rash of measles?
- A. It begins on the trunk and spreads outward to the extremities.
 - B. It begins in the face and neck and spreads over the rest of the body over three days.
 - C. It appears first in the feet and then spreads throughout the body.
 - D. It has no particular pattern; it can start anywhere on the body.
27. The most common causative organisms for otitis media are:
- A. *Hemophilus influenza* and *Streptococcus pneumonia*.
 - B. *Candida albicans* and *Pseudomonas aeruginosa*.
 - C. *Hemophilus influenza* and various anaerobes
 - D. *Pseudomonas aeruginosa* and various anaerobes.

28. Clinical presentation of type 1 diabetes mellitus usually includes all of the following

EXCEPT:

- A. Recent weight gain.
- B. Ketosis.
- C. Thirst.
- D. Polyphagia.

29. Which of the following characteristics applies to type 1 diabetes mellitus?

- A. This condition is commonly found on routine examination.
- B. Initial response to sulfonaureas is usually good.
- C. Insulin resistance is a hallmark of the disease.
- D. Significant hyperglycaemia and ketoacidosis resulting from the lack of insulin.

30. Which of the following is true of type 2 diabetes mellitus?

- A. It is known as juvenile onset diabetes.
- B. It is easily treated with diet and exercise.
- C. It never occurs in children but is only adult onset.
- D. The incidence is rising in Africa due to increasing rates of childhood obesity.

(TOTAL 30 MARKS)

QUESTION #2

(25 MARKS)

SCENARIO: You are a newly graduated FNP working in a rural clinic. You have noticed that mothers are waiting too long before seeking treatment for their children. Focusing on the group under 5 years old, design a plan for teaching Rural Health Motivators on how to identify children in need of care for **pneumonia**. In your teaching plan:

- A. Articulate the evidence-base (or rationale) for training. **(2 MARKS)**
- B. Develop goals or objectives for this training? **(2 MARKS)**
- C. Describe the contents of the training. For each content item, describe and then justify the methodology you will use. **(18 MARKS)**
- D. Identify the outcomes would you measure. **(3 MARKS)**

QUESTION #3

(10 MARKS)

- A. Differentiate the location of obstruction in the respiratory tract that results in inspiratory stridor, expiratory stridor, biphasic stridor, and wheezing. For each, give at least one diagnosis that could present with that sign. **(8 MARKS)**
- B. Describe the two most important assessments you will make in a child with stridor. **(2 MARKS)**

QUESTION #4**(20 MARKS)**

SCENARIO: Zodwa is a three-year-old child who was developing normally during her first year. At her first birthday she weighed 12 kg, but by 18 months had only gained 2 kg. She now has pale mucus membranes, has a flat affect, does not smile or try to communicate with adults and cries easily. She has decreased subcutaneous tissue, lower extremity oedema, and abdominal distention. Answer the following questions regarding how you will proceed in gathering information on her condition.

- A. According to WHO there are ten (10) essentials to managing malnutrition. What are three (3) priority assessments you will accomplish on day 1 of treatment? Indicate two will you defer to later. State the rationale for the timing of each. **(10 MARKS)**
- B. What additional history will you elicit from her family to determine the source of her malnutrition? **(2 MARKS)**
- C. What additional history will you obtain regarding her overall health? **(2 MARKS)**
- D. Name three micronutrients (vitamins and minerals) Zodwa could be lacking and a physical manifestation for each. **(6 MARKS)**

QUESTION #5**(15 MARKS)**

Scenario: Three-year-old Nosipho has a fever of 38.7 degrees centigrade and symptoms of upper respiratory disease for three days. Her respiratory rate is 36 breaths per minute. She now has ear pain, a sore throat and a rash over her body. Answer the following questions about how you will proceed to assess her.

- A. Three possible diagnoses (differential). **(3 MARKS)**
- B. For each diagnosis what additional information, physical examination, or investigations you would need to determine if this is the cause. **(12 MARKS)**