

**UNIVERSITY OF SWAZILND**  
**FACULTY OF HEALTH SCIENCES**  
**FINAL EXAMINATION PAPER, MAY 2009**

**TITLE OF PAPER: NURSING SCIENCE AND ARTS IV**

**COURSE CODE: NUR 341**

**TIME ALLOWED: TWO (2) HOURS**

**MARKS: 75**

**INSTRUCTIONS:**

- 1. THERE ARE THREE (3) QUESTIONS IN THIS PAPER**
- 2. ANSWER ALL THREE QUESTIONS**
- 3. EACH QUESTION IS ALLOCATED 25 MARKS**
- 4. EACH CORRECT STATEMENT OR FACT WITH SCIENTIFIC  
RATIONALE CARRIES ONE (1) MARK**
- 5. WRITE LEGIBLY**

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

### QUESTION 1

**SITUATION:** Mrs Y, who is 42 years old is admitted to the ward complaining of severe headache, fever, and neck stiffness. These clinical manifestations have been present for the past three (3) days. After a comprehensive physical examination she was diagnosed as suffering from **cryptococcal meningitis**.

- A. Describe the pathophysiology of meningitis. (5)
- B. Develop four (4) nursing diagnoses in readiness to manage Mrs Y. (8)
- C. Describe the nursing intervention for Mrs. Y based on the above four (4) nursing diagnoses. (12)

**TOTAL 25 MARKS**

### QUESTION 2

**A. SITUATION:** Baby X, who is five (5) days old is admitted to the pediatric ward and the parents report a protrusion over the vertebrae column. Bay X was diagnosed with **meningocele**. Whilst being prepared for surgery you must nurse Bay X.

Differentiate meningocele from meningomyelocele (5)

**B. SITUATION:** Mr. A. who is 35 years old, is admitted to the male medical ward. He complains of anorexia, productive cough, oral thrush, diarrhoea, general body weakness, skin eruptions, and weight loss. These symptoms have been persisting for the past four weeks. The Dr ordered several diagnostic tests, and also conducted a thorough physical assessment on Mr. A. Mr. A. was finally diagnosed as **positive to the human immune virus (HIV+)**.

- (i) Describe the pathophysiology of HIV (8)
- (ii) Describe the nursing interventions for Mr. A. on the following nursing diagnoses

- (a) Altered oral mucous membrane related to opportunistic infections (4)
- (b) Fluid and electrolyte imbalance related to gastrointestinal infection (4)
- (c) Risk for infection related to suppressed immune system (4)

**TOTAL 25 MARKS**

### **QUESTION 3**

State if each of the following statements is **true** or **false**, by writing either **true** or **false** in your answer booklet.

1. Spina bifida occurs as result of the failure of the lateral laminae of the vertebrae to close.
2. The incidence of spina bifida is 1:1000 newborn babies
3. The Down's syndrome reflects the presence of bisomy of chromosome 21.
4. Cleft lip occurs because of failure to fuse of the mandibular and median nasal processes.
5. Two-thirds meningitis cases are a result of viral infection.
6. In Brudznski's sign; when the patient's neck is flexed, the hip and knee also flex.
7. The normal spinal fluid pressure ranges between 175 and 250 mmHg.
8. One of the modifiable risk factors for cerebrovascular accident is gender.
9. In transient ischemic attack [TIA] the neurologic deficits occur for less than 24 hours.

10. In cerebrovascular accident, plodding is characteristic of a lesion on the right side of the brain.

11. The computed tomography [CT] scan was developed in the United States of America in 1972

In your answer booklet write the letter that corresponds with the most appropriate response, e.g. 1. A,

2. C

**SITUATION:** Mr. Y was admitted to the Ophthalmic Ward presenting with gradual loss of peripheral vision. Questions 12 - 15 refer to the above situation.

12. Primary angle-closure glaucoma [PACG] accounts for:

- A. 90% of all glaucoma
- B. 100% of all glaucoma
- C. 50% of all glaucoma
- D. 10% of all glaucoma

13. What characterizes acute angle-closure?

- A. Painless
- B. Excruciating pain
- C. Dull pain
- D. Numbness

14. What is the range of normal intraocular pressure?

- A. 4 – 9 mm Hg
- B. 10 – 21 mm Hg

C. 22 – 30 mm Hg

D. 0 – 3 mm Hg

15. Primary open angle glaucoma develops

A. Very fast with severe clinical manifestations

B. Very slowly without any clinical manifestations

C. Moderately fast with moderate clinical manifestations

**SITUATION:** Baby Y was admitted to the ward with both cleft lip and cleft palate:

Questions 16 to 20 relate to the above situation:

16. The incidence of cleft deformities are:

A. Twice greater among babies born to mothers who smoke

B. 1: 1000 births among African-Americans

C. Higher among baby girls

D. 1: 500 births among Native Americans

17. The diagnosis of a cleft palate is made by:

A. An x-ray

B. Moving your finger over palate

C. Inspecting the baby's lips

D. An amniocentesis

18. The nurse must suspect that a baby has a cleft palate if the baby:
- A. Cries a lot during feed times
  - B. Suffers from recurrent otitis media
  - C. Has milk oozing down the nostrils during feeding times
  - D. Is unable to swallow milk
19. Fusion of the hard and soft palate occurs between the \_\_\_\_\_ weeks of gestation.
- A. 6<sup>th</sup> and 11<sup>th</sup>
  - B. 6<sup>th</sup> and 12<sup>th</sup>
  - C. 7<sup>th</sup> and 10<sup>th</sup>
  - D. 7<sup>th</sup> and 12<sup>th</sup>
20. Both cleft palate and cleft lip:
- A. Can be reversed by medical intervention only
  - B. Can be reversed by surgical intervention only
  - C. Can be reversed by surgical intervention in combination with medical intervention
  - D. Are lifelong deformities

**SITUATION:** Ms N. is admitted to your ward and has been diagnosed as being HIV+ .

Question 21 to 25 relate to the above situation.

21. The transmission of HIV:

- A. Requires contact with body fluids—specifically blood, semen, vaginal secretions, breast milk, saliva, or exudates from wounds or skin and mucosal lesions
- B. Will occur when bathing or showering together with an HIV+ person
- C. Will occur in body-to-body rubbing and massage with or by an HIV+ person
- D. Will take place if one of the two is HIV+ in male homosexual and heterosexual intercourse only.

22. Once an HIV+ client is on HAART, he or she should avoid taking \_\_\_\_\_ because of its interaction with the drugs.

- A. Honey
- B. Dairy products
- C. Grapejuice and garlic
- D. Red meat

23. In a normal immune system the CD4 T-cells ranges between:
- A. 500 and 1000 cells per microliter of blood
  - B. 700 and 1100 cells per microliter of blood
  - C. 800 and 1200 cells per microliter of blood
  - D. 900 and 1300 cells per microliter of blood
24. Normal CD4+ T-cells have an average lifespan of 100 days, whereas an HIV infected CD4+ T-cells have an average lifespan of:
- A. 1 day
  - B. 2 days
  - C. 1 month
  - D. 2 months
25. In an HIV+ person severe immune problems including opportunistic infects affect the body when the CD4+ T-cells reduce to less than:
- A. 150 cells per microliter of blood
  - B. 200 cells per microliter of blood
  - C. 250 cells per microliter of blood
  - D. 350 cells per microliter of blood

**TOTAL 25 MARKS**