

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
FINAL EXAMINATION PAPER, MAY 2011

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 INVIGILATOR HAS GRANTED
PERMISSION.**

QUESTION 1

Situation: Following graduation, as a newly qualified staff nurse you are assigned to work in the Hospital's Operating Theatre.

- A. Describe four (4) advantages and three (3) disadvantages of thermal (steam) sterilization. (7)
- B. Describe four (4) responsibilities of a scrub and four (4) responsibilities of a circulating nurse. (8)
- C. State and describe five (5) principles of the aseptic technique. (10)

TOTAL: 25 MARKS

QUESTION 2

Situation: V. W. is a 19- year-old man brought to the Casualty Department after a bicycle accident. He was unconscious on admission to the Casualty Department. The rescue team reported that V.W. was alone on the bicycle, not wearing a helmet, and hit by a driver who turned left in front of him at a traffic light. He was thrown from the bicycle onto the pavement. He was conscious initially after the accident, but became comatose during transport to the hospital.

- A. Differentiate a subdural from an epidural hematoma. (5)
- B. Describe measures by which head injuries could be prevented / avoided. (5)
- C. Describe the nursing management of V. W. under the following nursing diagnosis, indicate at least one (10 expected outcome for your management:
 - (i) Ineffective airway clearance related to impaired sensory-motor function. (8)
 - (ii) Altered cerebral tissue perfusion. (7)

TOTAL: 25 MARKS

QUESTION 3

For each of the following statements, write CLEARLY the letter that corresponds with the most appropriate answer e.g. 1. B in your answer book.

1. A female client's preoperative laboratory results are as follows; RBCs = 4.8 million/mm³, WBCs = 8.2/mm³, hematocrit = 42 mL/dL, haemoglobin 12.6 g/dL, platelets = 100,000/mm³. This client
 - A. Has insufficient blood volume to withstand a surgical haemorrhage.
 - B. Is at increased risk of intraoperative / postoperative bleeding.
 - C. Has an existing infection and needs immediate antibiotic therapy.
 - D. Is at increased risk for developing iron deficiency anaemia

2. Which of the following statements is correct about surgical consent forms?
 - A. The nurse clarifies any questions after preoperative sedation is given.
 - B. The nurse's signature is to show witness to the client's signature
 - C. Consents are signed by clients only for major surgical procedures
 - D. Signed consents are required for every operation without exceptions.

3. Nursing research has shown that infection can be reduced by performing the skin shave
 - A. The night before surgery.
 - B. With the client's own razor.
 - C. Immediately before the operation.
 - D. Only on the head and perineal areas

4. Which of the following is an appropriate nursing intervention when preparing a client for surgery?
- A. Advise family members that they will be allowed in the operating room until the client is asleep.
 - B. Explain to the client that deep breathing exercises will be taught after the operation.
 - C. Put the client's jewellery in the hospital safe and tape the client's wedding band on his / her finger.
 - D. Tape any dentures in a bag to the client's gown to go to the operating room.

Match the following descriptions (5 – 7) with their types of regional anaesthesia A – E

Description	Regional anaesthesia
5. Anaesthetic agent applied directly to body surface	A. Epidural
6. Injection of anaesthetic agent through vertebral interspaces	B. Field block
7. Injection of anaesthetic agent into subarachnoid spaces	C. Spinal
	D. Topical
	E. Nerve block

8. Nursing a client with a foreign body in the eyes includes:
- A. Advising the client to wear protective goggles when working with power tools.
 - B. Assessing the client's visual acuity thoroughly after the eye irrigation.
 - C. Administering an intramuscular analgesic prior to eye irrigation.
 - D. Directing the irrigation solution across the cornea towards the inner canthus.

9. Nursing care of the client with chemical burns to the eye includes
- A. Irrigating first one eye then the other if both eyes are involved.
 - B. Assessing the client's visual acuity following the irrigation procedure.
 - C. Using an irrigation solution that will neutralize the chemical irritant.
 - D. Determining the pH of the irritating chemical before starting to irrigate the eye.
10. Which of the following statements about migraine headaches is correct?
- A. Headaches occur when pain-sensitive areas of the brain parenchyma have been stimulated
 - B. Migraine headaches tend to occur more frequently as an individual age.
 - C. Migraine headaches tend to involve the same symptoms each time in the susceptible individual.
 - D. The causes and mechanisms of migraine headaches are well understood, permitting effective treatment.
11. Which of the following statements about the pathophysiology and aetiology of migraine headaches is correct?
- A. During the prodromal phase, a rise in the plasma serotonin level causes arterial vasodilation.
 - B. Following vasodilation, cerebral vasoconstriction and spasm occur, causing headache.
 - C. The onset of migraine headaches in the premenstrual period is related to the estrogen level.

D. Migraine headaches are precipitated by neuroses, certain personality characteristics, and too much sleep.

12. Which of the following statements about seizure activity is correct?

- A. Seizures are an inherited disorder and linked to findings of below normal intelligence
- B. The triggering mechanisms cause sudden abnormal bursts of electrical brain activity.
- C. The mechanisms responsible for the development of seizures are well understood.
- D. Seizure activity follows the all-or-none principle and the entire brain responds to a trigger.

13. Care for the client who has had cerebrovascular accident (stroke) and has impaired mobility includes:

- A. Performing active ROM to the affected areas TDS
- B. Using splints and trochanter rolls for positioning
- C. Assessing for a positive Romberg sign daily
- D. Measuring the diameters of thighs and calves daily

14. Which of the following foods is preferred for the client with a stroke who has difficulty swallowing?

- A. Scrambled egg
- B. Broiled fish.
- C. Orange juice
- D. Sandwich.

15. Which of the following statements about head injury is correct?
- A. Secondary responses to brain injury are inconsequential to morbidity and mortality rates.
 - B. The most common sites of injury to the brain are the occipital and cerebellar lobes.
 - C. The most common cause of head trauma is falls, especially in the elderly.
 - D. Preventive measures for head trauma include wearing seat belts and protective head gear.
16. The first priority in physical assessment of the client with recent head trauma is:
- A. Determining if spinal cord injury exists.
 - B. Ascertaining that there is a patent airway.
 - C. Checking for signs of increased ICP.
 - D. Verifying that there is a carotid pulse.
17. Drug therapy for the client with severe head trauma includes:
- A. Prednisone (orasone)
 - B. Haloperidol (haldol)
 - C. Mannitol (osmitrol)
 - D. Tolbutamide (orinase)

18. Interventions to reorient the client with head trauma who has loss of sensation include:
- A. Serving beverages that are warm, not hot, to prevent burns.
 - B. Leaving side rails down so that the client can get up as desired and explore the room.
 - C. Playing audiotapes of the client's favourite music during the day for relaxation.
 - D. Explaining procedures to the client in detail before and after they are completed.
19. A baby who suffers from Down's Syndrome (mongolism) will present with all of the following **EXCEPT**:
- A. Delayed eruption of the teeth.
 - B. A tongue that is too large for the mouth.
 - C. A wide space between the 2nd and 3rd toes.
 - D. Narrow palpebral fissures.

Indicate if each of the following statements is true or false, by writing either **TRUE** or **FALSE** in your answer sheet.

- 20. About 60%-80% of children born with cleft lip and cleft palate are females.
- 21. Cleft lip with cleft palate may be caused by exposure to anticonvulsant medication.
- 22. In hydrocephalus, the sutures fail to close and the bones of the skull become thick.
- 23. Failure to thrive (FTT) is marked by growth faltering, whereby the growth curve of the infant is flat or drops off for two consecutive months
- 24. Penetrating injuries are the second most common cause of tympanic membrane perforations.
- 25. The presence of infection in the middle ear leads to positive pressure in the tympanic membrane.

TOTAL: 25 MARKS