UNIVERSITY OF ESWATINI

FACULTY OF HEALTH SCIENCES

FINAL EXAMINATION – AUGUST, 2020

TITLE OF PAPER :ADVANCED MEDICAL /SURGICAL NURSING IV

COURSE CODE: NUR511

DURATION : 2 HOURS

TOTAL MARKS : 75

INSTRUCTIONS:

1. DO NOT OPEN THIS PAPER UNTIL THE INVIGILATOR HAS GRANTED PERMISSION.
2. ANSWER ALL THREE (3) QUESTIONS.
3. QUESTION 1 IS A MULTIPLE-CHOICESECTION AND HAS 25 MARKS.
4. QUESTION 2 AND 3 ARE SHORT AND LONG ESSAY QUESTIONS, AND THEY CARRY MARKS AS INDICATED.
5. EACH QUESTION IS TO BE ANSWERED ON A SEPARATE PAGE IN YOUR ANSWER BOOKLET.

Question 1

Instruction: In your answer booklet, write the correct letter that corresponds to the question or statement. E.g. 1. F

1. When administering any vasoactive drug during the treatment of shock, what is the goal of the therapy?

    A. Increasing urine output to 50 mL per hour.
    B. Constriction of vessels to maintain blood vessel tone.
    C. Maintaining a mean arterial pressure of at least 65 mm Hg
    D. Dilating vessels to improve tissue perfusion

2. The development of edema in clients with acute renal failure is associated with which of the following factors?:

    A. Excessive fluid intake caused by diabetes insipidus.
    B. Low serum albumin levels,
    C. Increased oncotic pressure in the vasculature.
    D. High serum albumin levels.

3. What is the key factor in describing any type of shock?
    A. Hypoxemia
    B. Hypotension
    C. Vascular collapse
    D. Inadequate tissue perfusion

4. Potassium is one of the critical electrolytes that require frequent monitoring among clients with acute renal failure. In the critical care unit, the nurse pays attention to the electrocardiographic changes. Which of the following electrocardiographic changes are associated with hyperkalemia?

    A. Peaked T- waves.
    B. Inverted T-waves.
    C. Presence of Q-wave.
    D. ST-Segment elevation.

5. The patient with chronic renal failure is brought to the emergency department with Kussmaul respirations. What does the nurse know about chronic renal failure that could cause this patient's Kussmaul respirations?

   A. Uremic pleuritis is occurring.
   B. There is a decreased pulmonary macrophage activity.
   C. They are caused by respiratory compensation for metabolic acidosis.
   D. Pulmonary oedema from heart failure and fluid overload is occurring.

6. Which serum laboratory value indicates to the nurse that the patient's chronic renal failure is getting worse?

   A. Decreased blood urea nitrogen (BUN)
   B. Decreased sodium.
   C. Decreased creatinine.
   D. Decreased calculated glomerular filtration rate (GFR)

7. Which of the following symptoms is an early sign of intracranial hypertension that the nurse should assess?

   A. Cushing's triad.
   B. Unexpected vomiting.
   C. Decreasing level of consciousness (LOC).
   D. Dilated pupil with sluggish response to light.

8. A dehydrated patient is in the Injury stage of the RIFLE staging of acute renal failure. What would the nurse first anticipate in the treatment of this patient?

   A. Assessment of daily weight
   B. Intravenous administration of fluid and furosemide (Lasix)
   C. Intravenous administration of insulin and sodium bicarbonate
   D. Urinalysis to check for sediment, osmolality, sodium, and specific gravity.

9. The nurse assesses that bowel sounds are absent and abdominal distention is present in a patient 12 hours post-burn. What action should the nurse anticipate doing?

   A. Withhold all oral intake except water.
   B. Insert a nasogastric tube for decompression.
   C. Administer a H2-histamine blocker such as ranitidine (Zantac).

D. Administer nutritional supplements through a feeding tube placed in the duodenum.

10. The nurse recognizes the presence of Cushing's triad in the patient with renal failure, which vital sign changes indicate the Cushing triad?

A. Increased pulse, irregular respiration, increased BP
B. Decreased pulse, increased respiration, decreased systolic BP
C. Decreased pulse, irregular respiration, widened pulse pressure
D. Increased pulse, decreased respiration, widened pulse pressure

11. During neurologic assessment of the older adult, what should the nurse know that is an effect of aging on the neurologic system?

A. Absent deep tendon reflexes.
B. Below-average intelligence score.
C. Decreased sensation of touch and temperature.
D. Decreased frequency of spontaneous awakening

12. The development of thrombocytopenia occurs by various means of mechanisms **Except**:

A. Decreased platelet production
B. Increased platelet destruction.
C. Splenic sequestration of platelets.
D. Thrombolysis.

13. At the end of the emergent phase and the initial acute phase of burn injury, a patient has a serum sodium level of 152 mEq/L (152 mmol/L) and a serum potassium level of 2.8 mEq/L (2.8 mmol/L). What could have caused these imbalances?

A. Free oral water intake
B. Prolonged hydrotherapy
C. Mobilization of fluid and electrolytes in the acute phase
D. Excessive fluid replacement with dextrose in water without potassium supplementation

14. Which components are able to change to adapt to small increases in intracranial pressure (ICP)?

i. Blood
ii. Skull bone
iii. Brain tissue.
iv. Scalp tissue

v. Cerebrospinal fluid (CSF)

A. i, v, ii
B. iii, i, v
C. ii, i, v
D. iv, v, i,

15. A patient with an intracranial problem does not open his eyes to any stimulus, has no verbal response except moaning and muttering when stimulated, and flexes his arm in response to painful stimuli. What should the nurse record as the patient's GCS score?
    A. 6.
    B. 7.
    C. 9.
    D. 11.

16. A 24-yr-old female patient does not want the wound cleansing and dressing change to take place. She asks, "What difference will it make anyway?" What will the nurse encourage the patient to do?

    A. Have the wound cleaned and the dressing changed.
    B. Have a snack before having the treatments completed.
    C. Talk about what is troubling her and involve her family.
    D. Call the chaplain to come and talk to her and convince her to have the care.

17. Which factors decrease cerebral blood flow?

    i. Increased ICP
    ii. PaO2 of 45 mm Hg
    iii. PaCO2 of 30 mm Hg
    iv. Arterial blood pH of 7.3
    v. Decreased mean arterial pressure (MAP)

    A. i, iv, v.
    B. i, iv, ii.
    C. iii, ii, i.
    D. v, ii, i.

18. A patient in the progressive stage of shock has rapid, deep respirations. The nurse determines that the patient's hyperventilation is compensating for a metabolic acidosis when the patient's arterial blood gas (ABG) results include which of the following results?

    A. pH 7.42, PaO2 80 mm Hg
    B. pH 7.48, PaO2 69 mm Hg
    C. pH 7.38, PaCO2 30 mm Hg
    D. pH 7.32, PaCO2 48 mm Hg

19. A patient with a gunshot wound to the abdomen is being treated for hypovolemic and septic shock. To monitor the patient for early organ damage associated with multiple organ dysfunction system (MODS), what is most important for the nurse to assess?

    A. Urine output
    B. Breath sounds
    C. Peripheral circulation
    D. Central venous pressure

20. Which of the following is an important risk factor for peptic ulcer haemorrhage?

    A. Non-steroidal anti-inflammatory drug use.
    B. Cigarette smoking
    C. Use of corticosteroids
    D. Abuse of antimicrobial drugs.

21. What is the initial cause of hypovolemia during the emergent phase of burn injury?

    A. Increased capillary permeability.
    B. Loss of sodium to the interstitium.
    C. Decreased vascular oncotic pressure.
    D. Fluid loss from denuded skin surfaces.

22. A burn patient has a nursing diagnosis of impaired physical mobility related to a limited range of motion (ROM) resulting from pain. What is the best nursing intervention for this patient?

    A. Have the patient perform ROM exercises when pain is not present.
    B. Provide analgesic medications before physical activity and exercise.

C. Teach the patient the importance of exercise to prevent contractures.
D. Arrange for the physical therapist to encourage exercise during hydrotherapy.

23. Regardless of the precipitating factor, what causes the injury to mucosal cells in peptic ulcers?

A. Acid back diffusion into the mucosa.
B. The release of histamine from GI cells.
C. Ammonia formation in the mucosal wall.
D. Breakdown of the gastric mucosal barrier

24. What does the nurse include when teaching a patient with newly diagnosed peptic ulcer disease?

A. Maintain a bland, soft, low-residue diet.
B. Use alcohol and caffeine in moderation and always with food.
C. Eat as normally as possible, eliminating foods that cause pain or discomfort.
D. Avoid milk and milk products because they stimulate gastric acid production.

25. A patient with a history of peptic ulcer disease is hospitalized with symptoms of a perforation. During the initial assessment, what should the nurse expect the patient to report?

A. Vomiting of bright-red blood.
B. Projectile vomiting of undigested food.
C. Sudden, severe generalized abdominal and back pain.
D. Hyperactive bowel sounds and upper abdominal swelling.

(Subtotal 25 Marks)

Question 2

2.1. Differentiate between severe sepsis and septic shock. **(2 marks)**

2.2 The management of a patient with severe sepsis is based on a variety of nursing diagnoses. The nursing interventions are based on the understanding of the disease process. Describe the pathophysiologic mechanisms that lead to the following complications of severe sepsis:

a) Imbalanced nutrition less than metabolic demands. **(3 marks)**

b) Coagulation dysfunction. **(4 marks)**

c) Ineffective tissue perfusion **(4 marks)**

2.3. **Situation:** Mr Ndlela, a 35 years old male, is admitted into the intensive care unit (ICU) following post craniotomy as a result of brain tumour.

The primary goal of post craniotomy nursing management is the protection of the integrity of the central nervous system (CNS). Describe the nursing management for Mr Ndlela under the following intervention strategies.

(i) Preserve Adequate Cerebral Perfusion **(4 marks)**

(ii) Promote Arterial Oxygenation **(3 marks)**

(iii) Provide Comfort and Emotional Support **(2 marks)**

(iv) Educating the Patient and Family **(3 marks)**

Sub Total 25 Marks

Question 3

3.1. **Situation:** Miss Mabuza is admitted into the intensive care unit (ICU) via casualty with a history of decreased level of consciousness, episodic seizures, projectile vomiting, headache. On examination, elevated BP-200/90 mmHg, Pulse- 54 beat/min, Respiration- 10br/min, mean intracranial pressure-22 mm Hg. The medical diagnosis of Miss Mabuza is intracranial hypertension.

Describe the nursing management for miss Mabuza's condition under the following interventions:

(i) Promotion of cerebral perfusion **(4 marks)**

(ii)Management of cerebral oedema **(3 marks)**

3.2 All critically ill patients should be considered at risk for stress ulcers. Stress ulcers lead to the development of acute gastrointestinal haemorrhage.

a) Develop three (3) nursing diagnoses that should be incorporated in the management of a critically ill patient with acute gastrointestinal haemorrhage. **(3 marks)**

b) Discuss the nursing interventions you will institute in the care and management of a patient with acute gastrointestinal haemorrhage, using the nursing diagnoses you identified in (i) above. **(9 marks)**

3.3. **Situation:** Ms Jele, a 40-year-old female, is admitted into the critical care unit following with a history of peptic ulcer disease. She arrived at the emergency department in a semiconscious, state, and a history of vomiting blood. The doctor has ordered the following drug classes; Gastric Proton-Pump Inhibitors, Histamine2 (H2) Antagonists and Gastric Mucosal Agent.

In each of the listed drug classes, state at least one (1) type of medication and its indication. You are required to tabulate your answer, as shown below. **(6 marks)**

Drug class	Type of medication	Indication
Gastric Proton-Pump Inhibitors		
Histamine2(H2) Antagonists		
Gastric Mucosal Agent		

(Subtotal 25 marks)