

UNIVERSITY OF SWAZILAND  
FACULTY OF HEALTH SCIENCES  
GENERAL NURSING SCIENCE DEPARTMENT  
MAIN EXAMINATION - DECEMBER 2018

COURSE TITLE: ADVANCED MEDICAL-SURGICAL NURSING III

COURSE CODE :NUR 510  
EXAMINER : JV MDLULI  
DURATION :2 HOURS

TOTAL MARKS:75

NUMBER OF PAGES: 5  
INSTRUCTIONS:

1. ANSWER ALL YOUR QUESTIONS ON THE PROVIDED ANSWER BOOKLET.
2. QUESTION 1 IS MULTIPLE CHOICE AND HAS 25 QUESTIONS.
3. QUESTIONS 2 and 3 ARE SHORT AND LONG ESSAY TYPE QUESTIONS AND CARRY MARKS AS INDICATED.
4. EACH CORRECT POINT/FACT/STATEMENT IS WORTH 1 MARK UNLESS INDICATED OTHERWISE ON THE QUESTION.

START EACH QUESTION ON A NEW PAGE

***DO NOT OPEN THE EXAMINATION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR***

## QUESTION 1

1. Which of the following statements from a patient might be indicative of unstable angina?
  - a. "I have crushing chest pain which is getting worse and does not get better with rest".
  - b. "I have squeezing chest pain that has lasted more than 30 minutes"
  - c. "Resting helps to relieve my chest pain".
  - d. "Exercising is helpful in relieving my chest pain"
2. Which of the following is a modifiable risk factor for coronary artery disease (CAD)?
  - a. Hypercholesterolemia
  - b. Age
  - c. Sex
  - d. Race
3. A patient is transferred from the medical-surgical floor to the intensive care unit for a blood pressure of 70/40, increased confusion over the past 6 hours, nausea, vomiting and urine output of 50 mL over the last 6 hours. The patient also has a diagnosis of diabetes mellitus and the blood sugar have remained less than 60mg/dL (<3.5mmol) despite a bolus of 50 mL of dextrose. What would the nurse do upon receiving the patient?
  - a. Begin an intravenous bolus of fluid
  - b. Administer an injection of glucocorticoid replacement
  - c. Send the patient for an abdominal x-ray
  - d. Assess vital signs, put the patient on the telemetry monitor and draw labs.
4. A patient presents with sudden onset shortness of breath and difficult breathing. Her tongue is swollen and she states she is feeling very dizzy. What would be the medication most likely given to her?
  - a. Diphenhydramine
  - b. Dopamine
  - c. Aminophylline
  - d. Epinephrine
5. A patient who is 4 hours post operative for a surgical repair for gastrointestinal bleeding. Suddenly he begins to experience Dyspnea, chest pain and coughing up purulent sputum. What complication is he most likely experiencing?
  - a. Hypostatic pneumonia
  - b. Pneumothorax
  - c. Acute respiratory distress syndrome
  - d. Hypovolemic shock
6. The ICU nurse knows that physiologic stress on the patient can lead to which **two** of the following?
  - a. Hypermetabolism resulting in increased O<sub>2</sub> consumption
  - b. Hypermetabolism resulting in reduced O<sub>2</sub> consumption
  - c. Increased gluconeogenesis
  - d. Reduced sympathetic nervous system stimulation

7. Sleep and rest are essential for a patient in the ICU. Which **two** of the following characterize REM sleep?
- Dreaming
  - Heart rate slows and the body temperature drops
  - Comprises 5-10% of sleep
  - Associated with rapid side-to-side movements of the closed eyes
8. The ethical principle of beneficence refers to which of the following?
- The duty to do no harm
  - The right to be treated with dignity
  - The duty to do and maximize good
  - The right to make own decisions
9. In which of these conditions would supplemental oxygen be the initial treatment of choice
- Status asthmaticus
  - Increased intracranial pressure
  - Diabetic Ketoacidosis
  - Anaphylactic shock
10. Which of the following is the calculation suggested by Marsh(2000) for determining the endotracheal tube size for children above one year?
- Age+ 4
  - Age minus 4
  - $\frac{\text{Age}+4}{4}$
  - $(\text{Age} \times 4) \times 2$
11. Which of these should be assessed in children due to their high metabolic rate?
- Oxygen saturation
  - Blood glucose
  - Weight
  - Body Temperature
12. An SpO<sub>2</sub> of 97% would be interpreted as \_\_\_\_\_?
- High
  - Normal
  - Low
  - Borderline
13. Which of the following describes cardiac afterload ?
- The amount of ventricular stretch at the end of diastole
  - The ability of the heart to pump blood
  - Physical inactivity as a result of cardiomyopathy
  - The amount of resistance the heart must overcome to open the aortic valve and push the blood volume out into the systemic circulation.

### QUESTION 1 B

Part of patient assessment in ICU comprises determining arterial blood gas levels. These help the practitioners to assess how the patient's body is adjusting to the immediate environment. Copy the table in your answer book and fill in the empty spaces regarding arterial blood gases. All stated conditions are uncompensated. (10)

Condition	pH	PaCO <sub>2</sub>	HCO <sub>3</sub>	One possible intervention
Respiratory acidosis	Less than 7.35		Normal	
Respiratory alkalosis			Normal	Treat underlying cause – usually self-limiting Antianxiety medications
Metabolic acidosis		Normal		
Metabolic alkalosis	pH greater than 7.45			

Marks: 10

## QUESTION 2

A 50 year old patient has been admitted into the ICU with a history of a crushing chest pain which occurred early in the morning. The pain is not relieved by sublingual nitroglycerin. He also complains of dyspnoea that seems to be getting worse. He is diaphoretic and appears anxious. He is diagnosed with myocardial infarction (MI). Answer the following questions pertaining this scenario.

2.1 Discuss the physiologic effects of nitroglycerin. (6)

2.2 Describe any five diagnostic tests which can be ordered for this patient and their uses. (5)

2.3 Discuss the nursing management for this patient under the following diagnoses:

i. Acute pain related to transmission and perception of cutaneous, visceral and ischemic impulses. (3)

ii. Activity intolerance related to cardiopulmonary dysfunction. (3)

iii. Disturbed sleep pattern related to fragmented sleep. (4)

iv. Anxiety related to threat to biological, psychological or social integrity. (4)

MARKS: 25

## QUESTION 3

When children are admitted into the ICU, their condition is usually unstable and critical.

3.1 Using the ABCDE approach, discuss the special considerations to be made for a paediatric client in an adult ICU. (15)

3.2 A known patient previously treated for deep vein thrombosis is admitted into the ICU with tachycardia, tachypnoea, chest pain- a sharp, stabbing pain that worsens on inspiration. The patient is diagnosed with pulmonary embolism.

Discuss the nursing management of this patient under 'educating the patient and family'. (10)

MARKS:25

**TOTAL MARKS: 75**