UNIVERSITY OF SWAZILAND

FACULTY OF HEALTH SCIENCES

SEMESTER I

DECEMBER 2014

FINAL EXAMINATION

COURSE TITLE : ADVANCED MEDICAL-SURGICAL NURSING III

COURSE CODE : NUR 510

TIME ALLOCATED : 2 (TWO) HOURS

MARKS ALLOCATED: 75 MARKS

INSTRUCTIONS

1. **THERE ARE THREE (3) QUESTIONS IN THIS PAPER.**
2. **ANSWER ALL THREE QUESTIONS.**
3. **EACH QUESTIONS IS ALLOCATED 25 MARKS**
4. **WRITE LEGIBLY.**

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

QUESTION 1

MULTIPLE CHOICE QUESTIONS

Seven months old Sive is admitted to the Adult Critical Care Unit.

Questions 1-8 relate to her.

1. Secondary apnea in children can result from the following hospital procedures <u>except</u>:

a. Suctioning
b. Feeding
c. Lung hypoinflation
d. Passage of nasogastric tube

2. The upper airway of an infant is different from that of an adult. It is located at the .....level of cervical spine.

a. C 1
b. C 2
c. C 3
d. C 4

3. Sive displays the following manifestations of heart disease in children <u>except:</u>

a. Silent breathing
b. Lethargy
c. Tachypnea
d. Nasal flaring

4. The drug of choice Doctor orders for Sive is ...

a. Aminophylin
b. Digoxin
c. Bronchodilators
d. Pediatric aspirin

5. Sive could experience hypoxemia as a result of the following <u>Except</u>:

a. Cardiac disease
b. Respiratory disease
c. Vascular disease
d. Positive Rhesus factor

6. **Cyanosis occurs,**

a. When there is an increased haemaglobin level by 10g/100mEg/l plasma
b. When there is an increased haemaglobin level by 5g/100ml blood
c. When there is a decreased haemoglobin level by 5g/100ml blood
d. When there is a decreased haemoglobin level by 10g/100mEg/l serum

7. **When is it assumed that cyanosis is decreased by crying in a baby**

a. When it is of respiratory basis
b. When it is of cardiac basis
c. When it has nervous foundation
d. all of the above.

8. **The physiologic effect of untreated pain in children can result in the Following, <u>except</u>.**

a. Hyperglycemia
b. Hypoxin
c. Hyperventilation
d. Metabolic acidosis

9. **The following are the processes involved in nociception, Except**

a. Transduction
b. Transmission
c. Perception
d. Reception

Mrs. Zondi, 30 years, is six (6) months pregnant; admitted in the Critical Care Unit diagnosed with Heart disease:

Questions 10-13 relate to her.

10. **Mrs. Zondi's blood volume has the following changes <u>Except</u>:**

a. Total Blood volume increases
b. Red blood volume increases
c. Plasma volume increases
d. Colloid encotic pressure increase

11. Mrs. Zondi's maternal mortality risk is very high due to the fact that she has:

a. Artrial septal defect
b. Ventricular septal defect
c. Pulmonary hypertension
d. Portent dunctus arteriosus

12. Mrs. Zondi may experience prolonged labour which may be accompanied by (an):

a. Fetal distress
b. Adequate pelvis
c. Multiparity
d. Early admission to the maternity unit

13. The health care team should closely monitor Mrs. Zondi during labour as her cardiac output will increase by 65% during:

a. Early first stage of labour
b. Last first stage of labour
c. Second stage of labour
d. First 5 minutes post partum

14. In end of life care various role players have specific needs. The family needs are as follows <u>Except</u>:

a. To assess patient if not in pain
b. to be with the dying person
c. To be helpful to the dying person
d. To ventilate emotions

15. The clinical team needs are as follows <u>Except</u>:

a. Multidisciplinary teamwork
b. Ventilate emotions
c. Opportunity for bereavement and debriefing
d. Administrative support

16. The patient needs are as follows Except:

a. Receiving adequate pain management
b. Ventilate emotions
c. Avoiding inappropriate prolongation of dying
d. Strengthening relationships with loved ones

17. Manifestations of inadequate gas exchange on pulmonary assessment of a client include the following Except:

a. Increase partial pressure of oxygen
b. Decreased partial pressure of oxygen
c. Increased dead space
d. Central cyanosis.

Mr. Dlamini is 74 years, has been smoking since he was 15 years and he now has severe difficulty in breathing. The physician in ICU states that he has some form of acid- base imbalance.

Question 18-25 relate to the above situation

18. Which of the following causes respiratory acidosis?

a. Increased Pa 0_2
b. Increased Pa $C0_2$
c. Increased blood pH
d. Decreased carbonic acid

19. Which of the following causes respiratory alkalosis?

a. Increased $Pa0_2$
b. Increased Pa $C0_2$
c. Increase carbonic acid
d. Decreased blood pH

20. Prolonged nasopharyngeal suctioning of Mr. Dlamini's secretions could lead to:

a. Respiratory acidosis
b. Respiratory alkalosis
c. metabolic acidosis
d. a and c.

21. Respiratory acidosis is related to all the following Except:

a. Obesity
b. Underweight
c. Asthma
d. Diabetis mellitus

22. Respiratory alkalosis is related to all the following Except:

a. Congestive heart failure
b. Fever
c. Sarcoidosis
d. Anemia

23. The normal arterial blood pH range is

a. 7.0 - 7.49
b. 7.15 - 7.25
c. 7.35 - 7.45
d. 7.50 - 7.65

24. What is the main buffer base responsible for maintaining blood pH?

a. Bicarbonate
b. Phosphoric acid
c. Carbonic acid
d. a and c

25. Among the fluids Mr. Dlamini is getting is Ringer's Lactate. What type of intravenous fluid is Ringer's Lactate:

a. Crystalloid
b. Colloid
c. Free water
d. Blood product

QUESTION 2

Mrs. Shezi is 80 year old admitted due to hip dislocation; her condition is very unstable after surgery

(a) Identify five age related changes in the integumentary system and the nursing interventions required for each e g.

Skin Problem	Nursing Intervention
eg. Diminished skin turgor	bathe with tepid water as there is a reduction in eccrine and sebaceous gland activity. [10]

(b) Discuss the age-related pharmacokinetics that would influence nursing care delivery to Mrs. Shezi under the following:

(i) Absorption [3]
(ii) Distribution [3]
(iii) Metabolism [3]
(iv) Excretion [3]

(c) Identify three (3) laboratory values that many change due to old age. [3]

TOTAL 25 MARKS

QUESTION 3

Situation

Mr. Musi is 46 years old male admitted in the ICU in a critical condition following a severe head injury. He has been done a chraniotomy. He is semiconscious. He is on a ventilator and receives 40% oxygen, on auscultation his chest is moist. His vital signs: T30.9^{o}C, P 100, R30, BP 200/110mm Hg, $Pa0_2$ 100. Some of her blood chemistry 25 [chem 25]

results are leucocytes 30.000 µl(mm^3), creatinine 600 mg.dl, HB 8.0mg.dl. The doctor expresses that Mr. Musi is also experiencing pain.

A. i. Describe the physiology of short term response to pain [5]

ii. State and describe three (3) behavioural indicators of pain that you will observe for in Mr. Musi [6]

iii. Discuss nursing interventions by which you will assist Mr. Musi cope with stress (he has may stressors) [5]

B. What are possible causes and dangers of the following in Mr. Musi:

i HB 8.0mg/dl [3]

ii. BP 200.100mm Hg [3]

iii. T39.9^{0}C [3]

TOTAL 25 MARKS