



Model Answer of Critical Care Nursing

Final Semester Exam

Second Year- second Term

Date: /5/2015

Duration: 3 hours

Questions parts: 5

No. of papers:

Total Marks: 80 marks

Code No. NUR 206

Section I: Multiple Choice Questions: (20 marks)

***Please circle the best correct answer only :**

1-Cardiac catheterization allows the physician to determine the following except

- a- cardiac output
- b- cardiac index
- c- a hemodynamic parameter
- d- Pulmonary obstruction**

2- The volume of air delivered to a patient during a ventilator breath at 6 to 8 mL/kg is.....

- a) A minute volume
- b) Tidal volume**
- c) Peak flow
- d) Sigh volume

3- What happens to the patient's pulse who is in the early stage of shock?

- a) Increases.**
- b) Remains stable.
- c) Decreases.
- d) Fluctuates.

4- Drugs used in shock to reduce pulmonary edema called.....

- a) Diuretics.**
- b) Vasodilators.
- c) Isotropic agents.
- d) Bronchodilators.

5-Hypoxemic respiratory failure means.....

- a) **PaO₂ < 60 mmHg.**
- b) PaCO₂ > 50 mmHg.
- c) PaO₂ > 60 mmHg.
- d) PaCO₂ < 50 mmHg.

6- Normal partial pressure of oxygen (PaO₂).....

- a) 35-45 mm Hg.
- b) **80-100 mm Hg.**
- c) 22-26 mEq/L.
- d) 7.35-7.45.

7 - Most common cause of type I respiratory failure.....

- a) Obesity.
- b) Fractures.
- c) **Pneumonia.**
- d) Drug overdose.

8- All of the following risk for acute respiratory failure except:

- a) Cancer of the lungs.
- b) Excessively smoke.
- c) **Severe morning headache.**
- d) Chronic obstructive pulmonary disease (COPD).

9- Which is considered as the late sign of respiratory failure?

- a) Metabolic acidosis.
- b) Severe morning headache.
- c) Mild hypertension.
- d) **Cyanosis.**

10- Release of large amount of histamine as a result of severe allergic reaction in anaphylactic shock leading to.....

- a) Marked vasodilatation.
- b) Marked drop of arterial blood pressure.
- c) Marked increase of arterial blood pressure.
- d) **Both A + B.**

11- Narrowing of pulse pressure is one of warning signs of shock that is due to.....

- a) Systolic pressure from reduced cardiac output.
- b) Diastolic pressure from CNS response.
- c) Both A + B.**
- d) Decreased blood flow to the kidneys.

12- The common problem with peritoneal dialysis?

- a) Nausea
- b) Insomnia
- c) Abdominal infection**
- d) Respiratory problems

13- The major risk factor for stroke

- a) Obesity
- b) Diabetes
- c) High blood pressure**
- d) Family history of stroke

14 -The degree of neurological damage that occurs with ischemic stroke depends on the:

- a) Location of the lesion
- b) Size of area of inadequate perfusion
- c) Amount of collateral blood flow
- d) All of the above**

15- A patient after sustaining abdominal injuries and a broken femur from a motor vehicle accident, with severe bleeding, and is not responding coherently, The nurse suspects which type of shock?

- a) Neurogenic.
- b) Distributive.
- c) Cardiogenic.
- d) Hypovolemic.**

16- Patient monitoring equipments include the following except:

- a) Apnea monitor
- b) Electro cardiogram (ECG)
- c) **Infusion Pump**
- d) Elecrto encephalogram(EEG)

17- The slowest system in regulation of acid-base disturbance is

- a) Respiratory system
- b) Chemical buffer system
- c) **Renal system**
- d) None of the above

18- The pH of the gastric Juice is

- a) 5.4-6.9
- b) **0.9-2**
- c) 7.0-7.5
- d) 7.0-8.0

19- Mechanical ventilation is commonly indicated in all of the following conditions except:

- a) Multisystem failure
- b) Drug overdose.
- b) **Peptic ulcer**
- d)Thoracic surgery.

20- What is the priority in nursing diagnosis with your patient that diagnosed with end-stage renal disease?

- a) Activity intolerance
- b)**Fluid volume excess**
- c) Knowledge deficit
- d) Pain

Section II: True & false**(20 marks)**

Please, read the statement carefully and write the letter (T) if the statement is true and the letter (F) if the statement is false.

Statement Items	True/ False
1- Bleeding is the common complication post cardiac catheterization within 15 minutes	true
2- Improve blood flow to the tissues considered one of the compensatory mechanism in stage II of shock.	false
3- Hypercapnic respiratory failure is an imbalance between ventilatory supply and ventilatory demand	true
4- Absent or diminished breathing sound for patient with respiratory failure may indicate atelectasis	true
5-The presence of bronchial breath sounds over the lung periphery often results from lung consolidation that is seen with pneumonia	true
6- Syncope is one of signs of sinus Bradycardia	true
7-the dietary counseling for Na 20-30 gm / day and fluid intake are very important educational guidelines for patient with heart failure	False
8- Wearing loose sleeves for patient with vascular access is maintained to avoid obstructing blood flow	true
9- The nurse's preparation of the patient on peritoneal dialysis depending on their psychological status only	false
10- Broad spectrum antibiotic agents may be administered for patient with peritoneal dialysis to prevent infection	true
11-Arteriovenous shunt means fistula by connecting an artery directly to a vein	false
12-Stroke may be due to lack of oxygen when the blood flow to the brain is impaired by blockage of an artery to the brain.	false
13- the patient with sinus bradycardia under use of digitalis sudden	false

discontinuation of this drug is important	
14- Numbness or tingling is not common symptoms of a stroke	false
15- Coma results from impairment in both the arousal and awareness of consciousness	True
16- Sinus pause is absence of sinus P wave from 2 to 5 minutes	False
17- Using of anticoagulants to minimize blood clotting has values to patient with stroke	true
18- Urgent phase of burn care start from beginning of diuresis to near completion of wound closure	false
19- Burns are caused by transfer of energy from a heat source to the body	True
20- The first priority for patient care with sinus tachycardia is to monitor heart rate	False
21- In management of patient with burn the nurse must assess fluid and electrolytes changes to prevent fluid loss	True

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Section III: Matching Type Questions (15 marks)

Part (1): Match the medical terminology in column A with its definition in column B

Column A	Column B
1. Alkalosis	a- a condition in which there is a depression of cerebral function ranging from stupor to coma
2. atherosclerosis	b-(bleeding in the brain), as from an
3. An embolic stroke.	c-hardening of the artery
4. A cerebral hemorrhage	d- a condition in which the blood has too little base

5. Unconsciousness	e-It is an artery to the brain may be blocked by a clot.
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1	2	3	4	5
d	c	e	b	a

Part (2): Match the medical terminology in column A with its definition in column B

Column A	Column B
1- Atherosclerosis	a- Patients requiring more detailed observations or intervention, including support for a single failing organ or in the post-operative period
2- Glasgow coma scale	b- Sudden cessation of breathing and adequate circulation of blood by the heart.
3- level 0 of critical care	c- It is rapid assessment of neurological dysfunction .
4- level 2 of critical care	d- Patients requiring advanced respiratory support alone or basic respiratory support with at least 2 organ systems(multi-organ failure)
5- level 3 of critical care	e- hardening of the artery

1	2	3	4	5
e	c	b	a	d

Section IV: Short notes questions

(20 marks)

a- List post operative care for patient with cardiothoracic surgery (5 marks)

- 1- Admission and assessment
- 2-Promoting cardiac output and perfusion
- 3-Maintaining blood volume and chest drainage
- 4-Normalizing body temperature

5-Promoting a patient airway and effective gas exchange

6-Preventing infection:-

7-Monitoring neurologic status:-

8-Monitoring fluid balance:-

9-Promoting comfort, rest and sleep:-

10-supporting nutrition

11-Promoting activity:-

12-Monitoring anticoagulants:-

13-Promoting psychologic adaptation

14-Client and family teaching

b-Write 5 of readiness criteria for weaning of patients with mechanical ventilation (5 marks)

c- List the causing factors for altered state of consciousness among patients with stroke (2.5 marks)

d- list nursing measure for controlling internal bleeding (2.5 marks)

e- Complications of peritoneal dialysis (5 marks)

1-Peritonitis

2-A bloody effluent (drainage

3- Bleeding is common during the first few exchanges after a new catheter insertion because some blood exists in the abdominal cavity from the procedure.

Section V: Situation (10 marks)

Situation(1) : (5 marks)

Mr Ali,anewly dmited patient to intensive care unit (ICU) has a heart rate Less than 60 beats per minute, atrial rhythm is regular, the patient is diagnosed with a dysrhythmia

Answer the following questions

1-what is the type of arryhythmia for Mr Ali have? (0.5 mark)

Sinus bradycardia

2- List four causes of arrhythmias for Mr Ali? (2 marks)

1-Hypoglycemia

2-Hypothermia

3-Hypothyroidism

4- Medications

3-Write the proper critical nursing care for Mr Ali? (2.5 marks)

1- first rapidly ensure the stability of the patient's condition.

2 - Patients in unstable condition may require immediate endotracheal intubation and transcutaneous pacing.

3- Patients should have continuous cardiac monitoring and intravenous access.

4- In hemodynamically stable patients, attention should be directed at the underlying cause of the bradycardia.

5- In patients with sinus bradycardia secondary to therapeutic use of digitalis. simple discontinuation of the drug, along with monitored observation, are often all that is necessary. Occasionally, intravenous atropine and temporary pacing are required

Situation(2) : (5 marks)

Mr ahmed is 52 years old has 80 kg weight , admitted to emergency department suffering from burn which covered 15% of total body surface

1- Write the formula for fluid replacement to Mr ahmed (2 marks)

$2.4 \text{ ml} \times \text{kg body weight} \times \% \text{ total body surface area}$

2- Calculate the amount of fluid with average range only during 24 hours (1.5 marks)

$3 \times 80 \times 15 = 3600$

First 8hrs= 1800 ml

16hrs = 1800 ml

3- What is the suitable solution for this formula (1.5 marks)

Lactated ringer's solution

Good Luck