



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

SCHOOL OF NURSING MIDWIFERY AND PARAMEDICAL SCIENCES

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN
PARAMEDIC SCIENCE**

COURSE CODE: NPP 224

COURSE TITLE: SHOCK AND RESUSCITATION

DATE: 21ST APRIL 2022

TIME: 8 – 11 AM

INSTRUCTIONS TO CANDIDATES

All questions in the three sections (A, B and C) are compulsory

DURATION: 3 Hours

Answer all questions on the booklet provided

MMUST observes ZERO tolerance to examination cheating

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NPP 224: SHOCK AND RESUSCITATION

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SECTION A: MULTIPLE CHOICE QUESTIONS (MCQs)**20 MARKS***Choose the most appropriate answer*

1. A patient involved in a road accident is brought to the emergency department in an unconscious state. On arrival, her vitals show a temperature 96.4 degrees Fahrenheit, a respiration rate of 24 breaths per minute, a heart rate of 140 beats per minute and a blood pressure of 80/40mmhg. She is cold, shivering and perspiring profusely. She has bilateral reactive pupils but she does not respond to pain. On physical examination, she has no obvious sign of external bleeding. Which of the following cannot be the cause of hypotension in this patient?
 - a. Pelvic fracture
 - b. Fracture of femur
 - c. Intracranial hemorrhage
 - d. Hemothorax
2. Which clinical features is not consistent with tension pneumothorax?
 - a. Decreased Pneumothorax
 - b. Hyper resonance
 - c. Respiratory distress
 - d. Hypertension
3. Which of the following blood groups is considered a universal donor?
 - a. O
 - b. AB
 - c. A
 - d. B
4. Class IV hemorrhage indicates what percentage of blood loss?
 - a. 10 %
 - b. 25%
 - c. 35%
 - d. 55%
5. A 27-year-old female is resuscitated with blood transfusion after a motor vehicle collision that was complicated by a fractured pelvis. A few hours later the patient becomes febrile, hypotensive with normal CVP, and oliguric. Upon examination, the patient is found to be bleeding from the Nasogastric tube and IV sites. Which of the following is the most likely diagnosis?
 - a. Hemorrhagic shock
 - b. Acute adrenal insufficiency
 - c. Fat embolism syndrome
 - d. Transfusion reaction
6. Which one of the following is not a complication of head Trauma?
 - a. Intracerebral hematoma
 - b. Extradural hematoma
 - c. Diabetes Mellitus
 - d. Brain Abscess

7. What is the most common cause of laryngotracheal stenosis?
 - a. Infection
 - b. Trauma
 - c. Cancer
 - d. Congenital
8. Which interventions can help prevent development of acute renal failure?
 - a. Bumex drip
 - b. Infusion of normal saline
 - c. Strict intake and output
 - d. Infusion of lactated Ringers
9. Which one of the following is not associated with hypovolemic shock?
 - a. Inadequate tissue perfusion with resultant tissue hypoxia
 - b. Decreased circulating blood volume and decreased venous return
 - c. Kidneys, heart, brain, lungs and liver are spared
 - d. Blood shunting to vital organs
10. What is the most effective method of monitoring the success of resuscitation during cardiopulmonary resuscitation?
 - a. Systolic blood pressure
 - b. Warmth of extremities as a measure of peripheral perfusion
 - c. Pulse between 60 and 100
 - d. Reactivity of pupils to light
11. Which stage of shock initiates the compensatory mechanisms to maintain the BP and blood flow to the vital organs?
 - a. Initial
 - b. Compensatory
 - c. Progressive
 - d. Refractory
12. Which of the following is not used to ensure correct placement of an endotracheal tube?
 - a. Ultrasound
 - b. Bilateral Breath sounds
 - c. Sustained end tidal CO₂
 - d. Sustained end tidal O₂
13. What is the next step in a patient diagnosed with tension pneumothorax after needle thoracostomy?
 - a. Intubation
 - b. Chest tube
 - c. Observation
 - d. Chest radiograph
14. What is the first priority in the treatment of an unconscious patient?
 - a. Checking blood pressure
 - b. Establishing IV access
 - c. Establishing an airway
 - d. Checking the pulse

15. What is the next step in the assessment of a traumatic patient after airway is established?
- Airway
 - Breathing
 - Circulation
 - Neurologic
16. A paramedic is examining a patient who sustained traumatic brain injury. He documents absence of Doll's eyes. What does this signify?
- Cerebellar injury
 - Retinal injury
 - Brain stem injury
 - Vestibular dysfunction
17. Which one of the following is the least preferred method of administering IV fluids?
- Cubital veins
 - Cephalic veins
 - Subclavian veins
 - Saphenous vein
18. What is the cause of subdural Hematoma?
- Injury to the temporal artery
 - Tearing of bridging veins
 - Crushing of bones
 - Subarachnoid hemorrhage
19. What does a carotid pulse indicate?
- Diastolic blood pressure
 - A functioning pump for blood flow
 - The circulating blood volume is reaching end organs
 - None of the above
20. Which of the following generally causes hemorrhage associated with pelvic fractures?
- Venous bleeding
 - Superior gluteal injury
 - Lateral sacral artery injury
 - Obturator artery injury

SECTION B: SHORT ANSWER QUESTIONS (SAQS)

40 MARKS

Answer all questions

- Describe the initial assessment and management of a patient presenting with neurogenic shock (10 Marks).
- Describe the four classifications of hemorrhagic shock (10 marks).
- outline signs that identify the need for continued suspicion of life-threatening conditions in a patient presenting with shock. (10 Marks).
- Discuss five complications in a patient with inadequately resuscitated shock (10 marks).

SECTION C: LONG ESSAY QUESTIONS (LEQS)

40 MARKS

Answer all questions

1. Explain the pathophysiology of shock and its progression through phases (20 marks).
2. Describe the causes, etiology, mechanisms and management of septic shock (20 Marks).