



(University of Choice)

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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

SECOND YEAR THIRD TRIMESTER EXAMINATIONS

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

MAIN EXAM

COURSE CODE: NCD 235

COURSE TITLE: EMERGENCY AND TRAUMA NURSING

DATE: 9TH APRIL 2024

TIME: 8:00AM-11:00AM

INSTRUCTIONS TO CANDIDATES

Answer all questions in this examination paper in the answer booklet provided.

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

SECTION A: MULTIPLE CHOICE QUESTIONS (60 Marks)

1. What should you do to help someone who's having an asthma attack?
 - a) Help the person sit in a comfortable position and take their medication
 - b) Help the person sit in a comfortable position and breathe into a paper bag
 - c) Advise the person to do some stretches and run around the block
 - d) Assist their breathing by blowing into their nose
2. If someone is bleeding from a wound, what can you do to help?
 - a) Let the blood drain out
 - b) Put pressure on the injury
 - c) Tie a tourniquet above the injury
 - d) Dab the injury with something ice cold
3. Which term describes the physical or emotional aftermath following a traumatic or distressing event?
 - a) Shock
 - b) Posttraumatic stress disorder (PTSD)
 - c) Anxiety
 - d) Sepsis
4. Emotional trauma is best described as a psychological response to a deeply distressing or life-threatening experience.
 - a) TRUE
 - b) FALSE
5. What is the best way to clean a wound?
 - a) Alcohol
 - b) Hydrogen peroxide
 - c) Soap and water
 - d) All of the above
6. What is the name for the emergency treatment of obstruction of the airway in adults?
 - a) The Heimlich maneuver
 - b) The Epley maneuver
 - c) The Valsalva maneuver
 - d) Any of the above
7. _____ is the medical term for assistance given to a person in need of urgent medical intervention.
 - a) Urgent care
 - b) Emergency Medical Condition
 - c) First aid
 - d) Mouth-to-mouth
8. Injury to a muscle or tendon is called _____.
 - a) Strain
 - b) Sprain
 - c) Rupture
 - d) Splint
9. What degree of burn is sunburn (without blisters)?

- a) First-degree burn
 - b) Second-degree burn
 - c) Third- degree burn
 - d) Nth degree
10. CPR is an acronym for _____.
- a) Cardiac Pulse Restart
 - b) Cardiopulmonary Resuscitation
 - c) Complex Pushing Repetition
 - d) Counter Pulmonary Restart
11. Subdiaphragmatic abdominal thrust performed to clear airway obstruction in the awake patient without ventilation is termed as:
- a) Leopold's maneuvers
 - b) Pallach's maneuver
 - c) Heimlich maneuver
 - d) Valsalva maneuver
12. A slight bluish discoloration around the navel, is a sign of hemoperitoneum,
- a) Cullen's sign
 - b) Kernig's sign
 - c) Brudzinski's signs
 - d) Kehr's sign
13. Signs of meningeal irritation include all the following, EXCEPT:
- a) Neck stiffness
 - b) Brudzinski's sign
 - c) Kernig's sig
 - d) Kehr's sign
14. _____ happen when an impact breaks blood vessels below the skin causing blood to seep into tissues.
- a) Swelling
 - b) Broken capillaries
 - c) Fracture
 - d) Bruises
15. You're creating a first-aid kit. Three things every first-aid kit should have are:
- a) A safety pin, cotton swabs, and petroleum jelly
 - b) Plastic bags, a bar of soap, and, vitamin B
 - c) Tweezers, hydrocortisone cream, and painkillers
 - d) Bandage, eye drops, nail clippers
16. _____ is sometimes used as a common term for a cramp in the leg.
- a) "Hobbit Hare"
 - b) "Johnny Rabbit"
 - c) "Charley Horse"
 - d) "Crabby Cramp"
17. Butter is a great around-the-house first aid treatment for minor burns.
- a) TRUE
 - b) FALSE
18. If someone has fainted, should you raise their _____ above heart level?

- a) Head
 - b) Feet
 - c) Arms
 - d) Chin
19. Which type of over-the-counter pain medicine will also reduce swelling?
- a) Ibuprofen
 - b) Acetaminophen
 - c) Aspirin
 - d) Naproxen
20. If you come across someone who needs CPR, but you're not trained, what should you do?
- a) Lift the person's head to open airway
 - b) Start rescue breathing only
 - c) Begin chest compressions only
 - d) Don't do anything. Waiting for help is safer
21. If someone is distressed because of a traumatic or emergency situation, what is the first **thing you should do**?
- a) Give them a hug and take them to a doctor
 - b) Remind them that stress is not helping
 - c) Show you are listening and calmly ask how you can help
 - d) Ignore them and they will improve on their own
22. The APACHE II system is a:
- a) Quality assurance system
 - b) Severity-of-illness scoring system
 - c) Computerized vital signs monitoring system
 - d) Neonatal hydration monitoring system
23. The wounded victim is unable to walk, has respiratory rate of 19, capillary refill of one second, and is able to obey your commands. The wounded victim is assigned what tag color?
- a) Green
 - b) Red
 - c) Yellow
 - d) Black
24. The wounded victim is unable to walk, respiratory rate is absent but when airway is repositioned breathing is noted. The wounded victim is assigned what tag color?
- a) Green
 - b) Red
 - c) Yellow
 - d) Black
25. The wounded victim is unable to walk, respiratory rate is absent and when airway is repositioned breathing is still absent. The wounded victim is assigned what tag color?
- a) Green
 - b) Red
 - c) Yellow
 - d) Black
26. The wounded victim is able to walk and obey commands. The wounded victim is assigned what tag color?

- a) Green
 - b) Red
 - c) Yellow
 - d) Black
27. A client is admitted to the emergency department following an automobile accident. The client has four fractured ribs and a right sided pneumothorax. Which of the following respiratory assessment findings would the nurse expect to find?
- a) Crackles on the right chest and a respiratory rate of 8 breaths/minute.
 - b) Diminished breath sounds on the right and pain on inspiration.
 - c) Bilateral rhonchi and pink frothy sputum.
 - d) Dry cough and wheezing on the right side of the chest
28. Clinical evidence of diminished Cardiac Output includes:
- a) a narrow pulse pressure
 - b) rapid capillary refill
 - c) widened pulse pressure
 - d) bounding pulses
29. the most common cause of high cardiac output hypotension is:
- a) hemorrhage
 - b) cardiac failure
 - c) Sepsis
 - d) neurogenic shock
30. Intermediate Syndrome is observed in:
- a) cardiac arrest
 - b) respiratory failure
 - c) renal failure
 - d) organophosphorous poisoning
31. The procedure of compressing cricoid cartilage posteriorly against vertebral bodies during endotracheal intubation is called:
- a) Valsalva maneuver
 - b) Sellick maneuver
 - c) Heimlich maneuver
 - d) Leopold's maneuvers
32. Which of the following pairing about Glasgow Coma Score is wrong?
- a) 6 —Spontaneous Eye Opening
 - b) 1—No Verbal Response
 - c) 5—Localizes to pain (Motor Activity)
 - d) 3—Eye Opening to Verbal stimuli
33. The system of 'triage' is based upon which of the following principles?
- a) Treating patients in order of priority,
 - b) Treating first come first served,
 - c) Treating the quickest and easiest first,
 - d) Treating those that complaint the most first
34. Which of the following statements about triage is true?

- a) Triage is a low-risk activity and can be safely undertaken by junior staff with little training,
 - b) Triage is a detailed assessment which should lead to a clinical diagnosis,
 - c) Triage should be undertaken as soon after arrival in the ED as possible,
 - d) Triage only ever needs to be undertaken once in a patient's ED journey
35. The ABCDE approach is based upon which of the following principles?
- a) The ABCDE approach is a method for carrying out a detailed physical assessment,
 - b) The ABCDE approach assumes that all patients have an airway problem,
 - c) The ABCDE approach is a system of sorting ED patients into order of priority,
 - d) The ABCDE approach is a systematic method for identifying patient problems in order of priority
36. Which of the following statements regarding deteriorating patients is not true?
- a) Patients most at risk of deteriorating include those with co-morbidities, the old and the very young,
 - b) Deteriorating patients rarely show any signs prior to deteriorating,
 - c) The ABCDE approach is well-suited to the initial assessment and management of deteriorating patients,
 - d) Early warning scoring systems should be used to help identify deteriorating patients
37. Which of the following statements regarding track and triggers systems is true?
- a) Track and trigger systems are used for monitoring the physical location of patients,
 - b) Track and trigger systems convert physiological measurements into a level of clinical risk and indicate appropriate action,
 - c) Track and trigger systems are used to sort ED patients into order of priority,
 - d) Track and trigger systems have no place in the ED
38. Which of the following statements regarding pain in the ED is not true?
- a) Pain is a common reason for ED attendance
 - b) The effectiveness of analgesia should always be re-evaluated
 - c) Pain assessment is a straightforward activity
 - d) Pain management in the ED often falls below standard
39. Which of the following is the initial analgesic drug of choice for a patient who is in severe pain, with a score of 9 out of 10, due to a fracture
- a) IV paracetamol
 - b) Rectal NSAID
 - c) Splint
 - d) IV opiate
40. To correctly size an oropharyngeal airway in an adult, you should:
- a) Stimulate the gag reflex,
 - b) Choose a device with the same diameter as the patient's little finger,
 - c) Choose a device which extends from the patient's incisors to the angle of the jaw,
 - d) Choose a device which extends from the patient's nares to the tragus
41. A definitive airway should include the following:
- a) Oxygen enriched assisted ventilation,
 - b) Correctly sized endotracheal tube in the trachea with cuff inflated,
 - c) Well secured endotracheal tube,
 - d) All of the above

42. A catastrophic disaster has occurred 5 miles from the hospital you are working in. The hospital's disaster plan is activated and the wounded are brought to the hospital. You're helping triage the survivors. One of the wounded is able to walk around and has minor lacerations on the arms, hands, chest, and legs. You would place what color tag on this survivor?

- a) Red
- b) Yellow
- c) Green
- d) Black

43. Which statement below is INCORRECT about the yellow triage tag color in regards to a disaster situation?

- a) A survivor with this tag color is seen after patients with the green tag color.
- b) A survivor with this tag color can have treatment delayed for an hour or less.
- c) A survivor with this tag color has serious injuries that could eventually lead to the compromise of breathing, circulation, or mental status, especially if treatment is delayed more than an hour or so.
- d) A survivor with this tag color has second priority for treatment of injuries.

44. use the START method for adults to help triage the wounded that have been involved in a disaster situation: The wounded victim is unable to walk, has respiratory rate of 40, capillary refill is 6 seconds, and can't follow simple commands. The wounded victim is assigned what tag color?

- a) Green
- b) Red
- c) Yellow
- d) Black

45. While triaging the wounded from a disaster, you note that one of the wounded is not breathing, radial pulse is absent, capillary refill >2 seconds, and does not respond to your commands. What color tag is assigned?

- a) Green
- b) Red
- c) Yellow
- d) Black.

56. The wounded victim is unable to walk, has respiratory rate of 12, capillary refill is 8 seconds, and is unresponsive. The wounded victim is assigned what tag color?

- a) Green
- b) Red
- c) Yellow
- d) Black

47. Which of the following statements regarding hypoxia is true?

- a) Hypoxia causes drowsiness initially,
- b) SpO₂ of 94-98% is the normal range for all patients,
- c) Cyanosis is a late sign of hypoxia,
- d) Hypoxia and hypercapnia do not coexist

48. During percussion of the chest wall, hyperresonance suggests which of the following?

- a) Pneumothorax
- b) Haemothorax
- c) Pneumonia

- d) Pleural effusion
49. Which of the following statements regarding emergency oxygen therapy is true?
- a) Oxygen should be used as a treatment for breathlessness
 - b) Oxygen therapy should always be prescribed,
 - c) Non-rebreathe oxygen mask is the delivery device of choice in critical illness
 - d) Nasal cannula is the oxygen delivery device of choice in critical illness
50. Which oxygen device and flow-rate/percentage is recommended for the initial management of hypoxaemia in a patient with COPD?
- a) 28% via a Venturi mask
 - b) 60% via a Venturi mask
 - c) 10-15L/min via a non-rebreathe mask
 - d) 2L/min via a simple face mask
51. Which of the following is not a feature of life-threatening asthma?
- a) Hypoxia
 - b) Hypocapnia
 - c) Silent chest
 - d) Cyanosis
52. Which of the following statements regarding COPD is true?
- a) Patients should only be treated for COPD if they have an existing diagnosis,
 - b) Peak expiratory flow rate (PEFR) is the assessment of choice in COPD,
 - c) COPD is mainly caused by environmental pollution,
 - d) Patients with COPD may have chronic hypoxia
53. Which of the following methods of cardiovascular assessment allow estimation of the amplitude of a pulse?
- a) Pulse oximetry.
 - b) Manual palpation,
 - c) Cardiac monitor,
 - d) Cardiac auscultation
54. Mean arterial pressure (MAP) is an average blood pressure reading and considered to be a more accurate indicator of end organ pressure. What is the normal range for MAP?
- a) 30-50mmHg
 - b) 120-80mmHg
 - c) 2-6mmHg
 - d) 70-100mmHg
55. Which of the following cannulae has the fastest flow-rate?
- a) 22G (blue)
 - b) 20G (pink)
 - c) 18G (green)
 - d) 14G (brown)
56. Which of the following is a valid rationale for inserting a central venous catheter (CVC)?
- a) For rapid fluid administration,
 - b) For central drug administration,
 - c) Because it is quicker than gaining peripheral IV access,
 - d) Because it is safer than gaining peripheral IV access
57. Which of the following is not a risk associated with large volume crystalloid infusion?
- a) Anaphylaxis

- b) Haemodilution
 - c) Hypothermia
 - d) Oedema
58. What is the key factor which distinguishes decompensated shock from compensated shock?
- a) Tachycardia
 - b) Tachypnoea
 - c) Hypotension
 - d) Vasoconstriction
59. In the management of sepsis, what is the target timeframe for delivery of the sepsis six, including IV broad spectrum antibiotics?
- a) 1hr
 - b) 2hrs
 - c) 6hrs
 - d) 24hrs
60. You're working as a triage nurse during a disaster situation. Based on the triage color code tags placed on each of the wounded, which tag color represents the wounded who have the highest priority of being treated first?
- a) Green
 - b) Yellow
 - c) Red
 - d) Black

SECTION B: SHORT ANSWER QUESTIONS (SAQs)

(20 marks)

1. Describe the adult chain of survival objectives used to improve outcomes when performing cardiopulmonary resuscitation to a patient (6 marks)
2. List four (4) emergency drugs used in accident and emergency units and indicate the mode of actions for each (8 Marks).
3. Name any eight solid abdominal organs prone to injury? (6mrks)

SECTION C: LONG ANSWER QUESTIONS (LAQs)

(20 marks)

1. A catastrophic disaster has occurred 5 miles from the hospital you are working in. The hospital's disaster plan is activated and the wounded are brought to the hospital. You're helping triage the survivors. Four of The wounded victim are unable to walk, one has respiratory rate of 40, capillary refill is 6 seconds, and can't follow simple commands, two of the wounded are able to walk around with minor lacerations on the arms, hands, chest, and legs.

- i. As the trauma nurse in charge, describe the preparations you would make to receive the casualties?(10mrks)
- ii. Discuss the immediate assessment for the clients in code yellow?(5mrks)
- iii. Describe resuscitation process for patients in code red?(5mrks)

