



**MASINDEMULIROUNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

THIRD YEAR, SECOND TRIMESTER EXAMINATION

**FOR THE DEGREE
OF**

BACHELOR of Science in Clinical Medicine Surgery & Community Health

COURSE CODE: HCM 414

COURSE TITLE: ANAESTHESIA

DATE: FRIDAY DAY 5TH AUGUST 2021

TIME: 2.00-5.00 PM

INSTRUCTIONS TO CANDIDATES

All questions are compulsory

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

SECTION A: CHOOSE ONE CORRECT ANSWER

1. Which of the following is not a peripheral nerve block
 - A. Axillary plexus block
 - B. Brachial plexus block
 - C. Wrist block
 - D. Caudal block
2. An amide local anesthetic
 - A. Includes Bupivacaine and procaine
 - B. Para-amino benzoic acid is one of its metabolites
 - C. They are metabolized by pseudocholinesterase
 - D. Lignocaine can be given intravenously for treatment of cardiac arrhythmias
3. Concerning spinal anaesthesia
 - A. Post dural puncture headache is due to the leakage of blood into CSF
 - B. Spinal anaesthesia can be given for the surgeries above the level of umbilicus (T10)
 - C. In adults spinal needle can be introduced at vertebral level L2 - L3
 - D. Cauda equine syndrome is one of the complications.
4. Which of the following is not a blood preservative
 - A. Dextran
 - B. Citrate
 - C. Phosphate
 - D. Adenine
5. Which of the following is not true
 - A. Clear fluids fasting time is 2 hours
 - B. Fasting time for cold juice is 4 hours
 - C. Breast milk fasting time is 3 hours
 - D. Solid foods fasting time is 6 hours
6. Which of the following is a halogenated hydrocarbon inhalational anaesthetic
 - A. Isoflurane
 - B. Sevoflurane
 - C. Halothane
 - D. Diethylether
7. Depolarizing muscle relaxant
 - A. It includes Dexamethasone
 - B. Succinylcholine is metabolized by pseudocholinesterase
 - C. They also block cardiac muscles
 - D. They act on non-nicotinic acetylcholine receptors
8. Which of the following is not a complication of spinal anaesthesia?
 - A. Hypertension
 - B. Subdural hematoma
 - C. Increased ICP

D. Postduralpuncture headache

9. Concerning intravenous general anaesthetics agent
- A. They act on the same receptors as the inhalational general anaesthetics
 - B. Ketamine act on GABA receptors which is an excitatory receptor
 - C. Propofol is an phencyclidine the river team
 - D. Can be used for ankle block
10. Massive blood transfusion
- A. Is when more than three units of blood is transfused
 - B. It is replacement of less than 10 units of blood after bleeding
 - C. Can cause hypokalaemia
 - D. Hyperkalaemia is a complication of massive transfusion
11. Which of the following is true?
- i. Ringers lactate is a hypotonic crystalloid
 - ii. A half of total body fluid is found intracellularly
 - iii. Normal saline has a half life of more than one hour
 - iv. 1 ml of dextran replaces with 1ml of blood loss
12. Which of the following is not a component of general anaesthesia ?
- A. Hypnosis
 - B. Muscle relaxation
 - C. Induction of anaesthesia
 - D. Analgesia
13. Opioids
- A. Fentanyl and morphin can be given intrathecally
 - B. They cause respiratory depression by blocking phrenic nerve
 - C. Their respiratory depression complication can be reversed by anticholinestrerase
 - D. They also act on neuromuscular junction
14. Which of the following patient does not require coagulation profile before surgery ?
- A. Patient with liver disease
 - B. Patient on anticoagulant
 - C. Patient with severe sepsis
 - D. Patient with hypertension
15. Local anaesthetic agent
- A. They act by binding to voltage gated potassium channel
 - B. They are week acids
 - C. They can be mixed with opioids during spinal anaesthesia
 - D. They cannot be used together with adrenaline
16. During spinal/epidural anaesthesia procedure
- A. Normal saline can be used to clean the area of procedure
 - B. It is always aseptic procedure
 - C. Local anaesthetics can be given even if there is blood floor in the spinal needle
 - D. Spinal anaesthesia is when a spinal cord is blocked.
17. Which of the following drugs is not among the pre-medications?

- A. Dexamethasone
- B. Atracurium
- C. Atropine
- D. Plasil

18. Concerning blood products

- A. ABO compatible platelets transfusion is desirable but not necessary
- B. Fresh frozen plasma(FFP) can be stored for more than a year at 2-20°C
- C. Albumin is contraindicated in patient with hypoalbuminaemia
- D. Red packed cells are the best choice in patient with coagulation disorder than whole blood

19. Shock

- A. Cardiogenic shock is due to obstruction of blood from the heart
- B. Septicaemia can cause obstructive shock
- C. Progressive stage is the last stage of shock
- D. High spinal injury is among distributive shock

20. Which of the following is not respiratory complication of general anaesthesia?

- A. Respiratory obstruction
- B. Aspiration pneumonia
- C. Cardiac arrest
- D. Lung collapse

SECTION B: SHORT ANSWERED QUESTION

1. Briefly explain various complications of NSAIDs (10 Marks)
2. What are the parameters that are monitored during and after surgery?. (10Marks)
3. Explain four stages of anaesthesia(10 Marks)
4. List five complications and five contraindications of epidural/spinal anaesthesia (10 Marks)

SECTION C: LONG ANSWERED QUESTIONS

1. A 63 years old alcoholic patient with a massive goiter is scheduled for thyroidectomy as an elective surgery.

- a. Discuss different investigations that should be done on the patient before surgery (10mks)
- b. What other pre-operative preparations are required before surgery (5mks)
- c. Discuss the complications of massive blood transfusion (5mks)

2. (a) With an aid of a diagram, discuss how a neuromuscular junction work (10 mks)
- (b) Discuss how a neuron action potential occur (5mks)
- (c) With examples, briefly discuss two main types of neuromuscular blocking agents (muscle relaxants) (5mks)