



SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY

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ROLL NUMBER

WRITTEN TEST FOR THE POST OF TECH.ASST. ANAESTHESIA – A To B

DATE: 19/03/2024

TIME: 9.30 to 10.30 AM

DURATION: 60 MINUTES

Total Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Write your Roll Number on the top of the Question Booklet and in the answer sheet.
2. Each question carries 1 mark.
3. There will not be any Negative Marking.
4. Write legibly the alphabet of the most appropriate answer (A, B, C or D) in the separate answer sheet provided.
5. Over-writing is not permitted.
6. Candidate should sign in the question paper and answer sheet.
7. No clarifications will be given.
8. Candidate should hand over the answer sheet to the invigilator before leaving the examination hall.

Signature of the Candidate

Kan
19/3/24

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MFCP – 1 TECHNICAL ASSISTANT ANAESTHESIA

1. Which of the following colouring agents is not used for indicating exhaustion of soda lime?
 - a. Mimoso Z
 - b. Phenolphthalein
 - c. Ethyl violet
 - d. Methylene blue
2. Which of the following metals is compatible with the Magnetic resonance Imaging (MRI)?
 - a. Ferritic steel
 - b. Gold
 - c. Nickel alloy
 - d. Cobalt alloy
3. Which one of the following is a complication of sitting position in patients undergoing posterior fossa surgery?
 - a. Venous air embolism
 - b. Quadriplegia
 - c. Tension pneumocephalus
 - d. All of the above
4. Gadolinium is avoided in patients with
 - a. History of bronchial asthma
 - b. History of heart failure
 - c. History of renal failure
 - d. History of liver failure
5. Which of the following inhalational agents is pleasant during anaesthesia induction in Children?
 - a. Sevoflurane
 - b. Isoflurane
 - c. Desflurane
 - d. Enflurane
6. Which statement regarding blood component transfusion is wrong?
 - a. Recipient of AB group cannot be given plasma of B group donor
 - b. O negative group is considered universal donor
 - c. Donor of B negative group cannot donate blood for A negative group
 - d. Recipient of O group cannot receive plasma of B group donor
7. The cause of reddish discolouration of urine following massive blood transfusion may be because of
 - a. Hemophilia
 - b. hyperbilirubinemia
 - c. Hemoglobinuria
 - d. Rhabdomyolysis
8. Left atrial line placed during weaning a patient from cardiopulmonary bypass operated for arterial switch surgery is for
 - a. Measuring cardiac filling pressures
 - b. Estimating pulmonary hypertension
 - c. Assessing systemic vascular resistance
 - d. Measuring cardiac output
9. The procedure recommended by the Difficult airway algorithm in a case of anticipated difficult mask ventilation and intubation in adults is
 - a. Awake fiberoptic intubation
 - b. Awake video laryngoscopic intubation
 - c. Awake direct laryngoscopy
 - d. All of the above
10. The Laryngeal mask airway of choice in a 2-year-old child weighing 12 kg is
 - a. 1
 - b. 1.5
 - c. 2
 - d. 2.5
11. The value of BIS denoting adequate depth of anaesthesia during cardiac surgery is
 - a. 40-50
 - b. 10-20
 - c. 80-90
 - d. 90-100

12. Succinyl choline can be safely used in which of the following conditions?
 - a. Patients with upper lower limb muscle weakness due to motor neuropathy
 - b. Patients with chronic kidney disease
 - c. Patients with severe abdominal infections
 - d. Patients with mitral regurgitation and controlled cardiac failure
13. Which of the following mode is not available with anaesthesia work stations?
 - a. Pressure regulated volume control ventilation
 - b. Airway pressure release ventilation
 - c. Synchronous intermittent mandatory ventilation- pressure controlled
 - d. Pressure support ventilation
14. Sugammadex is ideally used to reverse the effect of

a. Succinyl choline	c. Midazolam
b. Rocuronium	d. Ketamine
15. The Target Controlled Infusion (TCI) models of propofol includes all except

a. Marsh	c. Kataria
b. Schnider	d. Minto
16. Which of the regional blocks administered during adult cardiac surgery is not in the anterior part of the chest?

a. Transverse thoracis plane block	c. Pectoralis nerve block (PECS 2)
b. Pecto-intercostal fascial plane block	d. Erector spinae plane block
17. While administering total intravenous anaesthesia which of the following monitors must be used?

a. Entropy monitor	c. Neuromuscular monitoring
b. NIRS	d. Evoked potential monitoring
18. Which of the following errors can be produced by presence of excess of heparin in the arterial blood gas sample?

a. Low PaO ₂	c. Metabolic alkalosis
b. High PaCO ₂	d. Metabolic acidosis
19. Cardiopulmonary resuscitation algorithm for adults following asystole includes

a. Early defibrillation	c. Administration of atropine
b. Administration of adrenaline	d. All of the above
20. Material of the Microcuff of Microcuff endotracheal tube consists of following

a. Microthin silicone	c. Microthin polyurathane
b. Microthin rubber	d. None of the above
21. The Partial pressure of Oxygen (PaO₂) corresponding to an SpO₂ value of 90% is

a. 90 mm Hg	c. 60 mm Hg
b. 85mm Hg	d. 50 mm Hg
22. Select incorrect statement on low flow anaesthesia
 - a. Carbon dioxide should be removed during low flow anaesthesia
 - b. FiO₂ monitoring is absolutely necessary
 - c. Fresh gas flow should exceed alveolar ventilation
 - d. Usually 1 to 2 litres of fresh gas flow is delivered

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23. American society of Anesthesiology (ASA) class 2 means
 - a. A moribund patient who is not expected to survive without operation
 - b. A patient with mild systemic disease
 - c. A declared brain-dead patient
 - d. A patient with recent myocardial infarction or cerebrovascular accident, which is a constant threat to the life
 24. Select a correct statement: A preoperative ABG estimation can
 - a. Act as baseline/benchmark value for perioperative blood gases
 - b. Can quantify the impairment of gas exchange
 - c. Can detect CO₂ retention
 - d. All of the above
 25. An appropriate preoperative strategy for a neonate scheduled for arterial switch operation would be
 - a. Breast feed 4 hours before surgery
 - b. Breast feed 6 hours before surgery
 - c. Intramuscular morphine 1 hour before surgery
 - d. Nasal midazolam drops 2 hours before surgery
 26. All are true about benzodiazepines except

<ol style="list-style-type: none"> a. They have convulsant properties b. They have anesthetic properties 	<ol style="list-style-type: none"> c. They give freedom from anxiety d. They can be given orally
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 27. Select correct statement about Glycopyrrolate:
 - a. Does not cause central anticholinergic effects
 - b. Results in less tachycardia than atropine
 - c. More longer acting than atropine in drying salivary secretions
 - d. All of the above
 28. Select wrong statement about nitric oxide
 - a. It is administered via inhalational route
 - b. It is used in the treatment of pulmonary hypertension
 - c. Severe hypotension due reduction in systemic vascular resistance is its adverse effect
 - d. Average therapeutic concentration used is about 20 ppm.
 29. Identify wrong statement about medical gas cylinders
 - a. Oxygen is stored in liquid form in type D cylinders mounted on anesthesia workstations
 - b. Carbon dioxide cylinders are Grey in colour
 - c. Pin index for mounting of nitrous oxide cylinder on anesthesia workstation is 3-5
 - d. Type H cylinder is bigger than type E
 30. Capacity of oxygen cylinder size E is

<ol style="list-style-type: none"> a. 680L b. 50L 	<ol style="list-style-type: none"> c. 100L d. 150L
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31. Select a wrong statement about intra-aortic balloon pump
- Balloon catheter has a channel to monitor invasive aortic pressure
 - IABP inflation and deflation can be triggered using ECG
 - IABP balloon can be inserted via axillary artery
 - Balloon is inflated using carbon dioxide gas
32. Select a CORRECT statement about cardiac output monitoring
- Thermodilution cardiac output is calculated by increase in temperature measured at pulmonary artery
 - PICCO is a non-invasive type of cardiac output measurement method
 - Pulse contour analysis method will be reliable in the presence of IABP counter pulsation
 - Cardiac output can be measured using transesophageal echocardiography
33. Select appropriate answer: Anesthetic gas scavenging system
- Recirculates exhaled gas
 - Absorbs CO₂
 - Transports waste anaesthetic gases to the outside
 - None of the above
34. Identify WRONG statement regarding transesophageal echocardiography
- Thermal heating is much more with a 3DTEE probe than a 2DTEE probe.
 - Electrocautery can degrade the echocardiographic image
 - TEE probe of one system (iE33, Philips Ultrasound) cannot be fitted on to other system (GE Vivid E 95 ultrasound)
 - 3DTEE probe can be used for echocardiographic examination in infants
35. The modern autoclave systems
- Uses steam at 134 degree Celsius at 2 bar pressure for 3.5 minutes
 - Steam is evacuated and replaced by sterile air
 - The entire cycle takes about 10 minutes
 - All of the above
36. Select a wrong statement about fiberoptic bronchoscopy during lung isolation
- It is held in left hand and tip control knob is operated using thumb by a right-handed person
 - Right bronchus is shorter than the left bronchus
 - Bronchial cuff of a correctly placed DLT should not be seen near carina when FOB is advanced through tracheal lumen
 - Two cuffs of EZ blocker should be seen placed in right and left bronchus
37. Which among the following modalities can be useful in monitoring both the respiratory and circulatory systems during conduct of CPR?
- Non-invasive blood pressure
 - ECG
 - Capnography
 - Airway pressure
38. Which of the following agent causes 'dissociative anesthesia'?
- Thiopentone
 - Ketamine
 - Etomidate
 - Propofol
39. Which is the drug of choice in managing anaphylaxis?
- Epinephrine
 - Dobutamine
 - Norepinephrine
 - Vasopressin

40. The vocal cords are supplied by which nerve?
- Glossopharyngeal
 - Vagus
 - Hypoglossal
 - Facial
41. During airway examination, the Anesthesiologist is not able to see the soft palate. Which Mallampatti class the patient belongs?
- Class 1
 - Class 2
 - Class 3
 - Class 4
42. Which iv fluid is not ideal in neuroanaesthesia
- Glucose containing iv fluids
 - Plasmalyte
 - Ringer lactate
 - Normal saline
43. Which anesthetic agent would be preferred in severe asthma patient?
- Thiopentone
 - Ketamine
 - Etomidate
 - Propofol
44. Which volatile agent can cause seizures at high doses?
- Sevoflurane
 - Isoflurane
 - Desflurane
 - Enflurane
45. In lung protective ventilation, the tidal volume set on ventilator should be
- 3-5
 - 6-8
 - 10-12
 - 12-14
46. The problem with the use of NSAIDs like diclofenac in neurosurgeries is
- Poor analgesia
 - Delayed recovery
 - Irritant to veins
 - Potential to increase bleeding
47. Which of following nerve blocks is NOT performed during awake intubation?
- Glossopharyngeal nerve block
 - Superior laryngeal nerve block
 - Retro laryngeal nerve block
 - Trans-laryngeal block
48. Target control infusion pumps are used for administering
- Propofol
 - Fentanyl
 - Atracurium
 - Noradrenaline
49. For protection of spinal cord after application of aortic cross-clamp during thoracoabdominal aortic aneurysm, following is done except:
- Spinal CSF drainage to keep CSF pressure low
 - Administration of sodium pentothal, steroids
 - Re-implantation of retrograde bleeding intercostal arteries below cross-clamp
 - Administration of sodium nitroprusside to control proximal hypertension
50. A child of Tetralogy of Fallot developed severe cyanotic spell during dissection around heart before establishing CPB. Following can be administered, except
- Sodium bicarbonate
 - 100% oxygen inhalation
 - Isoproterenol infusion
 - Phenylephrine-bolus

Technician Anaesthesia

Answer Keys

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|-------|-------|
| 1. D | 27. D |
| 2. B | 28. C |
| 3. D | 29. A |
| 4. C | 30. A |
| 5. A | 31. D |
| 6. D | 32. D |
| 7. C | 33. C |
| 8. A | 34. D |
| 9. D | 35. D |
| 10. C | 36. C |
| 11. A | 37. C |
| 12. D | 38. B |
| 13. B | 39. A |
| 14. B | 40. B |
| 15. D | 41. D |
| 16. D | 42. A |
| 17. A | 43. B |
| 18. D | 44. D |
| 19. B | 45. B |
| 20. C | 46. D |
| 21. C | 47. C |
| 22. C | 48. A |
| 23. B | 49. D |
| 24. D | 50. C |
| 25. A | |
| 26. A | |

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19/3/24