

**WRITTEN TEST FOR FCP TO THE POST OF  
Anaesthesiology Technician**

1. Which of the following is not used through a Tec 7 vaporizer
  - a) Halothane
  - b) Isoflurane
  - c) Desflurane
  - d) Enflurane
2. In a hemodynamically unstable patient the induction of anesthesia is particularly advisable with
  - a) Isoflurane
  - b) Halothane
  - c) Propofol
  - d) Etomidate
3. A patient is being resuscitated for acute blood loss. Which of the following solutions is the least likely choice for fluid resuscitation
  - a) Normal saline  $\tau$
  - b) Dextrose saline  $\uparrow$
  - c) Hydroxy ethyl starch
  - d) Ringers Lactate
4. The level of sodium found in 3% saline is
  - a) 75meq/L
  - b) 155meq/L
  - c) 310meq/L
  - d) 513meq/L
5. The shortest acting muscle relaxant is
  - a) Atracurium
  - b) Vecuronium
  - c) Pancuronium
  - d) Gallamine
6. Which of the following cannot be **directly** accomplished by 2D TEE
  - a) Assessment of left atrial size
  - b) Assessment of left atrial thrombus
  - c) Assessment of left atrial pressure
  - d) Assessment of left atrial myxoma



7. ECG is **not** useful for detecting which of the following
- a) Cardiac rhythm
  - b) Cardiac contractility
  - c) Cardiac conduction defects
  - d) Heart rate
8. The high pressure system of the anesthesia includes
- a) The oxygen flush
  - b) Flowmeters
  - c) The pipeline inlet
  - d) Hanger yokes
9. The intermediate pressure system of the anesthesia machine includes
- a) Flowmeter
  - b) Hypoxia prevention devices
  - c) Cylinder pressure indicator (gauge)
  - d) Common (fresh) gas outlet
10. The oxygen flush valve
- a) It is usually designed in such a manner as to avoid accidental activation
  - b) Will never affect the vaporizer output to the patient
  - c) The usual flow rate is between 150-200L/min
  - d) Tidal volume delivery will not be affected
11. The gas cylinder valves on anesthesia machine are kept closed and the pipeline supply is preferentially used. Spot the correct statement
- a) To prevent fires
  - b) To prevent change in volatile agent concentration
  - c) Pipeline pressure failure can be recognized early
  - d) Cylinder should always be kept open
12. Which of the following is **not** true regarding connectors and adaptors in breathing system
- a) Can be used to extend the distance between the patient and anesthesia machine
  - b) Change the angle of connection between patient and breathing system
  - c) Allow a more flexible connection between patient and breathing system
  - d) Reduces the dead space



13. Which of the following is **not** a function of breathing system
- a) Conveys excess gases to the scavenging system
  - b) Carries oxygen to the patient
  - c) Carries anesthetic gasses to the patient
  - d) Delivers positive pressure
14. A high inspired carbon dioxide concentration ( $\text{FiCO}_2$ ) is seen on the capnograph. The causes may include all **except**
- a) Low fresh gas flow ✓
  - b) Use of  $\text{FiO}_2$  of 40% or less ✓
  - c) Failure of one unidirectional valve
  - d) Failure of both unidirectional valves
15. What will cause water to accumulate in the breathing circuit
- a) Using coaxial tubes in the breathing system ✗
  - b) Heated humidified gas that cools in the breathing tube
  - c) Warming cooled humidified gases in the breathing tube
  - d) Maintaining the temperature of heated gas in the breathing tube
16. Which of the following is **not** a hazard of heated humidifier
- a) Sticky valves
  - b) Overhydration
  - c) Lowers the pH of blood
  - d) Alteration of anesthetic agents
17. Which of the maneuver is **least** useful in "opening up" the unsecured airway
- a) Forceful bag ventilation
  - b) Head tilt
  - c) Chin lift
  - d) Jaw thrust
18. Which of the following is **not** true regarding cleaning and sterilization of LMA
- a) It should be cleaned with soap and water
  - b) It can be sterilized with steam autoclave
  - c) Ethylene oxide can be used to sterilize the LMA
  - d) Solution of bicarbonate is useful in dissolving secretions
19. Which of the following is **not** true regarding preparation of LMA before insertion
- a) Cuff should be deflated to a flat oval disc
  - b) Deflated cuff should be wrinkle free



- c) Use of cuff deflating device is superior to manual deflation
  - d) Lubricate the anterior and posterior cuff surfaces with jelly
20. Regarding cuff inflation of LMA and assessing LMA position
- a) Cuff should be inflated to a pressure of 60 cm H<sub>2</sub>O
  - b) Use of cuff inflating pressure gauge is not recommended
  - c) Spherical pilot balloon indicates that there is too much air in the cuff
  - d) The cuff should be inflated over 5 seconds
21. Regarding the use of suxamethonium (scoline) the following is correct
- a) Bradycardia is a complication
  - b) Reduces serum potassium level ↗
  - c) It is indicated in patients with increased intracranial pressure
  - d) It is a long acting muscle relaxant ↗
22. All the following regarding atropine is correct EXCEPT
- a) Dilates the pupil
  - b) Has a shorter duration of action than glycopyrrolate
  - c) Causes bradycardia
  - d) Increases the physiological dead space
23. Calcium channel blockers include
- a) Nifedipine
  - b) Beta-blockers
  - c) Hydralazine
  - d) Sorbitrate
24. Tracheal deviation to the right can be caused by
- a) A large left pleural effusion
  - b) A right pneumothorax
  - c) A large right pleural effusion
  - d) Pulmonary edema
25. The following are inotropes EXCEPT
- a) Adrenaline
  - b) Dobutamine
  - c) Dopamine
  - d) Nitroglycerine



26. The following are inhalational anesthetics EXCEPT

- a) Desflurane
- b) Propofol
- c) Isoflurane
- d) Halothane

27. The following are the goals of preoperative evaluation EXCEPT

- a) Gathering information about the patient ✓
- b) Overall objective is reduction of perioperative morbidity and mortality ✓
- c) Ideally it is done by an anesthetist who is not giving the anesthesia
- d) Involves airway assessment ✓

28. Which patients should have pulmonary function tests before surgery

- a) All patients undergoing surgery under GA
- b) Smokers undergoing abdominal surgeries
- c) Patients undergoing lung resection
- d) Children with congenital heart diseases

29. Preparation of an OT before routine induction of GA includes all the following EXCEPT

- a) Checking gas source to anesthesia machine
- b) Back up cylinders attached to the anesthesia machine
- c) Loading of drugs for induction
- d) Keeping the fiberoptic bronchoscope ready

30. The following are alternative names of Mapleson circuits EXCEPT

- a) Magill circuit
- b) Bain circuit
- c) Jackson-Rees modification of Ayre's T piece
- d) Drager circuit

31. Heart rate is slowed by

- a) Propranolol
- b) Pancuronium
- c) Glycopyrrolate
- d) Dobutamine

32. Myocardial contractility is increased by all EXCEPT

- a) Catecholamines
- b) An increase in heart rate



- c) Calcium
  - d) An increase in parasympathetic nervous system activity
33. Lung isolation is best achieved by the following EXCEPT
- A. Double-lumen tube
  - B. Single lumen tube
  - C. Endobronchial blocker
  - D. Univent tube
34. Induction with ketamine is contraindicated in
- a) Asthmatic patient
  - b) Shocked patient
  - c) Patient with facial burns
  - d) Cyanotic patient
35. The following drugs can be used to treat bronchospasm occurring during anesthesia EXCEPT
- a) Amiinophylline
  - b) Isoflurane
  - c) Salbutamol
  - d) Propranolol
36. Tachycardia may be expected following administration of following EXCEPT
- a) Vecuronium
  - b) Pancuronium
  - c) Ketamine ✓
  - d) Glycopyrrolate
37. The following are the imaging modes in TEE EXCEPT
- a) 2D Echo
  - b) M mode
  - c) 3D Echo
  - d) Valve area assessment
38. How much is the normal vital capacity?
- a) 20 to 30 ml/kg body weight
  - b) 65 to 75 ml/kg body weight
  - c) 80 to 90 ml/kg body weight
  - d) 40 to 50 ml/kg body weight



39. Which one of the following is **FALSE**?

- a) Platelets can be infused through a standard administration set with a 170 micron filter
- b) Fresh frozen plasma (FFP) is rich in platelets.
- c) Cryoprecipitate is rich in factor VIII and fibrinogen
- d) Plasma product transfusions should be ABO compatible.

40. Which one of the following statements regarding tramadol, is **FALSE**?

- a) It is a synthetic opioid.
- b) It is effective for treating moderate postoperative pain.
- c) It has a low potential for abuse
- d) Tramadol is notorious for causing severe respiratory depression.

41. Which one of the following is **INCORRECT** pin indexposition?

- a) Oxygen: 2,5
- b) Carbon dioxide: 1,6
- c) Nitrous oxide: 3,5
- d) Air: 3,6

42. When one of the following agents is exposed to soda-lime or baralyme, it is absorbed and degraded to a variety of compounds including compound A. Compound A has been found to be toxic in rats, causing lung and renal damage. Identify the agent.

- a) Halothane
- b) Isoflurane
- c) Sevoflurane
- d) Desflurane

43. Which one of the following statements is **INCORRECT** regarding forced vital capacity (FVC), volume of air forcefully expired in the first second of an FVC maneuver ( $FEV_1$ ), and  $FEV_1/FVC$ ?

- a) In obstructive pulmonary disease, both  $FEV_1$  and FVC decrease, so that %  $FEV_1$  ( $FEV_1/FVC$ ) remains normal.
- b) A %  $FEV_1$  greater than 80 is considered normal.
- c) FVC decreases in restrictive pulmonary disease.
- d) An FVC that is at least 3 times greater than tidal volume is necessary for an effective cough.

44. Regarding Ringer's Lactate, which one of the following is **INCORRECT**?

- a) It has 131 mmol/L of sodium.
- b) It has 111 mmol/L of chloride.
- c) It has 29 mmol/L of lactate.
- d) It has 10 mmol/L of potassium.



45. Which one of the following is **CORRECT** regarding Normal saline?
- a) It has 154 mEq/L of sodium.
  - b) It has 100 mEq/L of chloride.
  - c) It has 140 mEq/L of sodium.
  - d) It has 140 mEq/L of chloride
46. Dextrose Normal saline used for infusion contains which one of the following?
- a) It has 154 mEq/L of sodium, 154 Eq/L of chloride, & 5gm/100ml of dextrose
  - b) It has 154 mEq/L of sodium, 154 Eq/L of chloride, & 50gm/100ml of dextrose
  - c) It has 140 mEq/L of sodium, 140 Eq/L of chloride, & 5gm/100ml of dextrose
  - d) It has 140 mEq/L of sodium, 140 Eq/L of chloride, & 50gm/100ml of Dextrose
47. The pattern of neural stimulation which is **most useful** for monitoring profound neuromuscular blockade (NMB) is:
- a) Train-Of-Four (TOF).
  - b) Double Burst Stimulation (DBS).
  - c) 50 hz tetanic burst (T50).
  - d) Post-tetanic Count (PTC).
48. Identify the **WRONG** statement regarding pulse oximetry.
- a) An oximeter uses 2 light emitting diodes, one emitting visible red light of 660nm and one emitting infrared light of 940 nm wavelength. ✓
  - b) Pulse oximeters give accurate readings in the presence of pigments such as carboxyhaemoglobin, methaemoglobin, and bilirubin. ✗
  - c) Measurements are accurate in the presence of pigmented skin.
  - d) Software is designed to detect the pulsatile waveform of the arterial pulse and measure the haemoglobin saturation of this pattern.
49. Sitting position used during neurosurgical procedures can cause all the following **EXCEPT**:
- a) Venous air embolism and paradoxical air embolism
  - b) Circulatory instability
  - c) Macroglossia
  - d) Increased intracranial pressure
50. Which one of the following is **TRUE**?
- a) Boiling (100°C) for 15 minutes kills bacteria, but spores may escape destruction.
  - b) Australian antigen virus is destroyed by boiling. ✗
  - c) Autoclaving is not useful for metal objects and fabrics.
  - d) Disinfection achieves the same reduction in microbial contamination levels as sterilization



51. Which one of the following drugs does **NOT** have the potential to trigger malignant hyperthermia?
- a) Succinylcholine
  - b) Isoflurane
  - c) Sevoflurane
  - d) Thiopental
52. Carbon dioxide in respired gas **CANNOT** be continuously measured by which one of the following?
- a) Mass spectrometry
  - b) Infrared analysis
  - c) Photoacoustic spectrometry
  - d) Pethysmography
53. Recommendations to protect medical staff from AIDS include all the following EXCEPT:
- a) gloves
  - b) resheathing needles
  - c) gowns
  - d) goggles
54. The recommended dose of vasopressin for the treatment of refractory pulseless ventricular tachycardia or ventricular fibrillation is:
- a) 10 IU.
  - b) 20 IU.
  - c) 40 IU.
  - d) 80 IU
55. Which one of the following is **FALSE** regarding oxygen E cylinders?
- a) As the cylinder empties, remaining gauge pressure is not proportionate to the number of liters of oxygen left in the cylinder.
  - b) A full cylinder contains 625 liters of oxygen. ✓
  - c) A full cylinder has a pressure of 2000 PSIG. ✓
  - d) The pressure-reducing valve on the cylinder will allow oxygen to exit at 45 to 51 PSIG.
56. Which one of the following is Mapleson 'A' circuit ?
- a) Mc-Intosh circuit
  - b) Ayre's T piece
  - c) Jackson-Rees circuit
  - d) Magill circuit



57. What is 'DISS'?

- a) Datex International safety system
- b) Drager International safety system
- c) Drug induced safety system
- d) Diameter indexed safety system

58. Mallampati classification is used to predict which one of the following?

- a) Difficulty in laryngoscopy
- b) Difficulty in intravenous cannulations
- c) Difficulty in arterial cannulations
- d) Difficulty in weaning from ventilator

59. Which one of the drugs mentioned below is **NOT** a selective alpha-1 adrenergic receptor agonist?

- a) Phenylephrine
- b) Metaraminol
- c) Norepinephrine
- d) Phenoxybenzamine

60. Which of the statements related to isoprenaline is **NOT true**?

- a) Bradycardia is its worrisome adverse effect
- b) It is a pulmonary vasodilator
- c) It improves myocardial contractility
- d) It is a skeletal muscle arteriolar dilator

61. Which of the following is **NOT CORRECT** regarding suctioning the tracheal tube?

- a) Diameter of suction catheter should not exceed half of the inner diameter of the airway.
- b) Suction gauge should be adjusted to 150 –200mmHg
- c) The catheter should not be inserted till resistance is felt.
- d) Suction should not be applied during insertion. ✓

62. Which one of the following statements is **FALSE**?

- a) Subarachnoid puncture above the L2-L3 interspace may result in cord injury.
- b) Epidural anaesthesia involves blockage of nerve roots outside the dura.
- c) 'Loss of resistance to injection test' is used for subarachnoid block.
- d) Total central neurological blockade (total spinal analgesia) is a dreaded complication of attempted epidural block.

63. Complication of massive transfusion includes all except

- A. Hypocalcemia
- B. Hypokalemia



- C. Hypothermia
  - D. Acidosis
64. Hepatitis B is acquired through
- A. Faecal oral route
  - B. During epidemics
  - C. Parenterally through infected blood or fluids
  - D. Due to unidentified agents
65. Non synchronous cardioversion is done in
- A. Atrial fibrillation
  - B. Ventricular fibrillation
  - C. Ventricular tachycardia
  - D. Atrial tachycardia
66. Gluteraldehydye solution used for re-sterilisation of catheters (Cidex) is
- A. 2.5%
  - B. 5.5%
  - C. 15.5%
  - D. 17.5%
67. When cardiac tamponade is suspected, during the time till pericardiocentesis is arranged:
- A. Temporary pacing is done
  - B. Atropine and furosemide are administered I/V
  - C. Fluid (saline) is rapidly administered I/V
  - D. Elective DC cardioversion to stabilize the rhythm
68. The p wave of the electro cardiogram represents
- A. Atrial depolarization
  - B. Atrial repolarization
  - C. atrial delay in conduction
  - atrial depolarization and repolarization
69. Energy need for intra cardiac cardio version is
- A. 2 to 30 joules
  - B. 30 to 50 joules
  - C. 50 to 100 joules
  - D. 200 to 300 joules
70. Drug of choice in managing a patient with anaphylaxis secondary to a drug administration is
- a) Atropine



- b) Corticosteroids  
c) Dopamine  
d) Adrenaline

$\frac{1}{3} P +$   
 $Pa + \frac{1}{2} P$

71. Mean arterial blood pressure can be calculated by adding  
a) One half the pulse pressure with the systolic blood pressure  
b) One half the pulse pressure with the diastolic blood pressure  
c) One third the pulse pressure with the systolic blood pressure  
d) One third the pulse pressure with the diastolic pressure
72. Normal level of serum albumin is  
A. 1.5 – 2.5 mg/dl  
B. 6 – 8 g/dl  
C. 3.5 – 5 g/dl  
D. 3.5 – 5 mg/dl
73. Normal level of serum creatinine  
A. 0.2 – 0.8 mg/dl  
B. 0.7 – 1.2 mg/dl  
C. 3 – 5 mg/dl  
D. 20 – 40 mg/dl
74. Inacute myocardial infarction  
A. Serum LDH decreases  
B. Serum ALP increases  
C. Serum CK-MB level increases  
D. Serum acid phosphatase increases
75. Normal Creatinine clearance is  
A. 140 – 175 ml/mt  
B. 60 – 70 ml/mt  
C. 30 – 50 ml/mt  
D. 80 – 125 ml/mt
76. Normal PH of blood is  
A. 7.15 – 7.25  
B. 7.25 – 7.35  
C. 7.35 – 7.45  
D. 7.45 – 7.55
76. 250 ml of 5% NaCl contains ----- g of NaCl  
A. 12.5  
B. 10.5  
C. 25.0  
D. 5.0

250 -



78. Normal specific gravity of urine

- A. 1.015 – 1.025
- B. 1.035 – 1.045
- C. 1.010 – 1.020
- D. 1.000 – 1.010

79. ST elevation of 3mm in Leads V1 V2 V3 V4 noted in the ECG is suggestive of:

- A. Anterior Wall MI
- B. Posterior wall MI
- C. Inferior wall MI
- D. Brugada syndrome

80. Coronary sinus drains into

- A. Right atrium
- B. Right ventricle
- C. Left atrium
- D. Left SVC