

1. Which of the following methods can be used to measure Functional Residual capacity (FRC)?
  - (A) Lithium dilution.
  - (B) Bohr's method.
  - (C) Body plethysmograph.
  - (D) Fowler's method.
  
2. With regard to systemic hypertension:
  - (A) 1% is caused by renal primary disease.
  - (B) Benign nephrosclerosis is the usual cause of renal impairment in patients with essential hypertension.
  - (C) Medial hypertrophy is a common reno-vascular abnormality.
  - (D) Cerebrovascular disease is loosely correlated to it.
  
3. Which of the following therapies are probably not effective in the treatment of post-operative nausea and vomiting?
  - (A) Ondansetron.
  - (B) Acupuncture.
  - (C) Droperidol.
  - (D) Metoclopramide.
  
4. Which of the following is not true of Latex allergy?
  - (A) The incidence in Health Care Workers is at least three times than that in those who are not exposed
  - (B) Type I reactions are more common than Type IV reactions.
  - (C) Is four times as common in women as opposed to men
  - (D) Is more common in those allergic to bananas.
  
5. Which is not true about Intra Vascular Regional Anaesthesia?
  - (A) Bupivacaine is a suitable agent for the technique.
  - (B) Intra-arterial regional anaesthesia requires only half the dose of agent as compared to IVRA.
  - (C) The dose required for 'top-up' after cuff release and re-inflammation during IVRA is the same as the initial dose.
  - (D) Prilocaine is a safer option than lignocaine.
  
6. During the use of uncuffed endotracheal tubes in paediatric patients, a gas leak should ideally be elicited with an inspiratory pressure of:
  - (A) 10 cm H<sub>2</sub>O.
  - (B) 20 cm H<sub>2</sub>O.
  - (C) 30 cm H<sub>2</sub>O.
  - (D) 40 cm H<sub>2</sub>O.
  
7. Which of the following plants do not have anticholinergic effects?
  - (A) Hyoscyamusniger.
  - (B) Scopoliacarniolica.
  - (C) Atropa belladonna.
  - (D) Papaver somniferum.

8. The most common ECG finding in a patient with tricyclic antidepressant overdose is:
- (A) Prolongation of the PR interval.
  - (B) Prolongation of the QT interval.
  - (C) The appearance of U waves.
  - (D) Prolongation of the QRS complex.
9. Which of the following drugs do not confer a risk of 'Torsades de pointes'?
- (A) Quinidine.
  - (B) Calcium gluconate.
  - (C) Sotalol.
  - (D) Cisapride.
10. Which of the following is not true about a patient with Ankylosing Spondylitis due to undergo anaesthesia?
- (A) Aortic incompetence may exist.
  - (B) Reduced lung compliance may make GA hazardous.
  - (C) Maintaining anaesthesia with a face mask may be difficult.
  - (D) Intubation may pose an additional hazard.
11. What change is not expected in a normal adult who has undergone a splenectomy following a road traffic accident?
- (A) Thrombocytosis.
  - (B) Decreased destruction of RBCs.
  - (C) Increased susceptibility to infections.
  - (D) Decreased serum transport of iron.
12. Which is not true about tracheo-oesophageal fistula?
- (A) The diagnosis is suggested by the inability to pass a feeding tube into the stomach
  - (B) Other congenital abnormalities commonly occur
  - (C) Polyhydramnios may well have been a feature of the antenatal period
  - (D) The child should be intubated soon after birth to reduce aspiration risk
13. The typical  $PCO_2$  ( $PaCO_2$ ) of a normal, non-labouring woman at term is:
- (A) 44 mm Hg.
  - (B) 49 mm Hg.
  - (C) 32 mm Hg.
  - (D) 18 mm Hg.
14. The administration of 0.5% halothane with nitrous oxide during Lower Segment Caesarean Section is not associated with:
- (A) Increased post-partum blood loss.
  - (B) Depressed neonatal neurobehavioral scores for several hours.
  - (C) Decreased sensitivity to oxytocin.
  - (D) Increased awareness.
15. Which of the following surgical incisions is associated with highest risk of postoperative pulmonary complications?
- (A) Vertical laparotomy.
  - (B) Horizontal Laparotomy.
  - (C) Lateral Thoracotomy.
  - (D) Median Sternotomy.

16. Which of the following is consistent with return of muscle tone adequate to protect the airway from aspiration?
- (A) TOF ratio of 0.7.
  - (B) No fade detectable on Double Burst Tetanic Stimulation.
  - (C) Return of normal resting minute ventilation.
  - (D) 5 sec sustained head lift.
17. Which of the following is not true of post-dural puncture headache?
- (A) 90% commence within 18hrs of dural puncture.
  - (B) The mechanism is due to traction on nerves supplying the meninges.
  - (C) The majority cause severe pain that is referred to the frontal and occipital areas.
  - (D) The technique of blood patch is 50% successful.
18. The absorption of large volumes of isotonic glycine during a TURP may cause all except:
- (A) Hypotension.
  - (B) Haemolysis.
  - (C) Hyperkalemia.
  - (D) Hypertension.
19. In adults, the angle at which the right bronchus leaves the carina is:
- (A) 15 degrees.
  - (B) 20 degrees.
  - (C) 25 degrees.
  - (D) 30 degrees.
20. Which of the following agents can react with soda lime?
- (A) Trichloroethylene.
  - (B) Ethyl Chloride.
  - (C) Sevoflurane.
  - (D) All of the above.
21. For every increase in PaCO<sub>2</sub> of 1mmHg, the subsequent rise in cerebral blood flow (CBF) is:
- (A) 0.5ml/100g/min.
  - (B) 1.5ml/100g/min.
  - (C) 5ml/100g/min.
  - (D) 10ml/100g/min.
22. What is the rate of rise of PaCO<sub>2</sub> during breath holding?
- (A) 1mmHg/min.
  - (B) 3mmHg/min.
  - (C) 4mmHg/min.
  - (D) 7mmHg/min.
23. Which of the following conditions are not associated with increased intraocular pressure?
- (A) Normal breathing.
  - (B) The head down position.
  - (C) Pupillary dilatation.
  - (D) Hypocarbica.

24. The most appropriate level for a transurethral resection of prostate (TURP) under spinal anaesthesia is::
- (A) T8.
  - (B) T10.
  - (C) L4.
  - (D) S1.
25. All can be used in the treatment of postdural puncture headache except:
- (A) Intravenous saline.
  - (B) Epidural blood patch.
  - (C) Intravenous caffeine.
  - (D) Acupuncture.
26. Which intra-abdominal pressure will result in oliguria?
- (A) 5 mmHg.
  - (B) 15 mmHg.
  - (C) 25 mmHg.
  - (D) 35mmHg.
27. Which of the following is not a branch of brachial plexus?
- (A) Lateral pectoral nerve.
  - (B) Medial pectoral nerve.
  - (C) Medial brachial cutaneous nerve.
  - (D) The intercostobrachial nerve.
28. Which of the following arteries is not a part of the "circle of Willis"?
- (A) Anterior communicating artery.
  - (B) Posterior communicating arteries.
  - (C) Internal carotid artery.
  - (D) Vertebral arteries.
29. Which structure is not a content of the carotid sheath?
- (A) Common carotid artery.
  - (B) Sympathetic trunk.
  - (C) Vagus Nerve.
  - (D) Internal jugular vein.
30. What arterial end tidal CO<sub>2</sub> tension difference would be expected in a fit, young patient undergoing general anaesthesia?
- (A) 0 mmHg.
  - (B) 5mmHg .
  - (C) 10 mmHg.
  - (D) 5 mmHg.
31. Which is not true regarding Propofol?
- (A) Contains egg lecithin.
  - (B) Contains soybean oil.
  - (C) Contains glycerol.
  - (D) Has pH of 3.7.

32. The Glasgow Coma Score of a head-injured patient who opens his eyes and withdraws his arms in response to a painful stimulus and who is groaning unintelligibly is:
- (A) 6.
  - (B) 7.
  - (C) 8.
  - (D) 9.
33. For the data series: 2, 1,6,4,2 which is true?
- (A) The mode is 4.
  - (B) The median is 3.
  - (C) The standard deviation is 4.
  - (D) The mean is 3.
34. For an operation on the palm of hand which of the following nerves must be blocked?
- (A) Musculocutaneous.
  - (B) Ulnar.
  - (C) Radial.
  - (D) Axillary.
35. Which of the following exist as a liquid at room temperature when stored in pressurised cylinders?
- (A) Helium.
  - (B) Nitrous oxide.
  - (C) Entonox.
  - (D) Oxygen.
36. The colour of Phenolphthalein in carbon dioxide absorbent, when exhausted, changes to:
- (A) White.
  - (B) Pink.
  - (C) Purple.
  - (D) Blue.
37. All are safety features in modern anaesthesia machines except:
- (A) Link 25.
  - (B) Oxygen failure protection device.
  - (C) Vaporizer Interlock.
  - (D) Two flow control valves for a single gas.
38. A TEC 7 vaporizer can be used for all agents except:
- (A) Halothane.
  - (B) Isoflurane.
  - (C) Desflurane.
  - (D) Sevoflurane.
39. The upper airway is innervated by all except:
- (A) Trigeminal nerve.
  - (B) Vagus nerve.
  - (C) Glossopharyngeal nerve.
  - (D) Phrenic nerve.

40. Minimum Perioperative Monitoring standards include all except:
- (A) Monitoring arterial blood gases.
  - (B) Monitoring Cardiac Output by thermodilution using pulmonary arterial catheter.
  - (C) Monitoring invasive blood pressure.
  - (D) Neuromuscular monitoring.
41. All are deleterious effects of perioperative hypothermia monitoring except:
- (A) Monitoring arterial blood gases.
  - (B) Monitoring Cardiac Output by thermodilution using pulmonary arterial catheter.
  - (C) Monitoring invasive blood pressure.
  - (D) Titrate vasoactive drug therapy.
42. All are deleterious effects of perioperative hypothermia except:
- (A) Arrhythmias.
  - (B) Coagulopathy.
  - (C) Altered mental status.
  - (D) Post operative nausea and vomiting.
43. Factors affecting anaesthetic uptake from the lungs include all except:
- (A) Solubility of the agent in blood.
  - (B) Alveolar blood flow.
  - (C) Cardiac output.
  - (D) Mechanical ventilation.
44. MAC value of volatile anaesthetics is increased by:
- (A) Opioids.
  - (B) Ketamine.
  - (C) Cocaine.
  - (D) Hypothermia.
45. All are adverse effects of Propofol except:
- (A) Hypotension.
  - (B) Bradycardia.
  - (C) Apnea.
  - (D) Convulsions.
46. ECG manifestations of hypokalemia are characterized by all except:
- (A) ST segment depression.
  - (B) Prominent U waves.
  - (C) Osborne waves.
  - (D) Prolongation of PR interval.
47. Which is true regarding Massive blood transfusion?
- (A) The need to transfuse three times the patient's blood volume
  - (B) Metabolic alkalosis is the commonest acid base abnormality.
  - (C) Citrate toxicity does not require therapy.
  - (D) Hypokalemia is common.
48. All are strategies for blood conservation except:
- (A) Autologous transfusions.
  - (B) Isovolemic haemodilution.
  - (C) Intraoperative cell salvage.
  - (D) Heparinization.

49. Which of the following is true regarding CPR?
- (A) Vasopressin is the drug of choice for pulseless VT.
  - (B) Incremental stacked shocks of biphasic defibrillation is recommended for VT.
  - (C) Amiodarone is the agent of choice for refractory VT.
  - (D) Atropine is the drug of choice for Pulseless electrical activity.
50. The following statement is true about ARDS:
- (A) Renal failure is a precipitating factor.
  - (B) Characterized by hypoxia responsive to oxygen therapy.
  - (C) Partial liquid ventilation improves survival.
  - (D) Lung protective ventilatory strategy improves survival.
51. In the early detection of an air embolism, the following are useful:
- (A) ECG.
  - (B) End-tidal CO<sub>2</sub>.
  - (C) Fall in blood pressure.
  - (D) Change in ventilatory pattern.
52. High central venous pressure, low blood pressure and acute circulatory failure are found in all except:
- (A) Tension pneumothorax.
  - (B) Pulmonary embolism.
  - (C) Congestive cardiac failure.
  - (D) Haemorrhage.
53. In acute cardiac tamponade there are all except:
- (A) Hypotension.
  - (B) Bradycardia.
  - (C) A prominent 'a' wave in the CVP trace.
  - (D) Cyanosis and cold extremities.
54. Immediate treatment of venous air embolism during posterior fossa surgery should include the following except:
- (A) Give mannitol.
  - (B) Raise the intracranial venous pressure.
  - (C) GIVE a rapid fluid infusion.
  - (D) Turn off nitrous oxide.
55. Recognised features of fat embolism includes all except:
- (A) Mental confusion.
  - (B) Bradycardia.
  - (C) Petechial rash.
  - (D) Respiratory distress syndrome.
56. In cardiopulmonary resuscitation:
- (A) Lignocaine should be given before adrenaline in ventricular fibrillation.
  - (B) The optimal treatment of ventricular tachycardia involves synchronised 50-joule DC shock.
  - (C) 50mL NaHCO<sub>3</sub> should be given every 10 minutes.
  - (D) Calcium should be given to renal failure patients on dialysis.

57. Which one of the following is not true for Hypokalaemia:
- (A) Causes ST segment depression on the ECG.
  - (B) Causes mental depression.
  - (C) Precipitates digoxin toxicity.
  - (D) Occurs in untreated hyperosmolar non-ketotic diabetic coma.
58. After massive inhalation of gastric acid one would expect the following:
- (A) Lung abscess.
  - (B) Severe hypercapnia.
  - (C) Bacteraemia.
  - (D) Destruction of surfactant.
59. Postoperative hypoxia at 15 minutes may be due to all except:
- (A) Mild hypercapnia.
  - (B) Nitrous oxide diffusion.
  - (C) Central depression.
  - (D) Shivering.
60. Ventricular arrhythmias are more common in the presence of:
- (A) Hypokalaemia.
  - (B) Thyrotoxicosis.
  - (C) Cardiopulmonary bypass and digoxin treatment.
  - (D) All of the above.
61. Treatment of acute anaphylaxis includes all except:
- (A) IM adrenaline.
  - (B) H1 and H2 antagonists.
  - (C) Hydrocortisone.
  - (D) IM chlorpromazine.
62. Air embolus is signified by except:
- (A) ECG changes.
  - (B) Pulsusparadoxus.
  - (C) Raised CVP.
  - (D) Decreased end-tidal CO<sub>2</sub>.
63. The following can be given by inhalation without causing systemic effects:
- (A) Adrenaline.
  - (B) Orciprenaline.
  - (C) Isoprenaline.
  - (D) Beclomethasone.
64. Complications of dextran-70 includes all except:
- (A) Hypocoagulability.
  - (B) Hypervolaemia.
  - (C) Renal failure.
  - (D) Antigenic reaction.



65. Recognised causes of urinary retention includes all except:  
(A) Ketamine.  
(B) Morphine.  
(C) Amitriptyline.  
(D) Ephedrine.
66. In epiglottitis the following is true:  
(A) IV access and oxygen are essential first-line treatment.  
(B) Immediate lateral neck x-ray is needed to aid diagnosis.  
(C) IV chlorpromazine is the treatment of choice  
(D) None of the above is true.
67. Causes of prolonged postoperative recovery of consciousness are:  
(A) Intraoperative intracerebral event.  
(B) Prolonged action of muscle relaxants.  
(C) Hypoventilation.  
(D) All of the above.
68. TURP syndrome:  
(A) Is associated with hypokalaemia.  
(B) May present with convulsions.  
(C) Is prevented by spinal anaesthesia.  
(D) Is caused by blood loss.
69. A young man admitted to casualty following a road traffic accident is found to have central dislocation of the hip and is shocked. Likely causes are:  
(A) Ruptured bladder.  
(B) Ruptured urethra.  
(C) Blood loss.  
(D) Neurogenic shock.
70. A patient with vomiting, respiratory distress, cyanosis, epigastric tenderness and subcutaneous emphysema in the neck may be suffering from all except:  
(A) Ruptured oesophagus.  
(B) Ruptured diaphragm.  
(C) Ruptured trachea.  
(D) Pulmonary embolus.
71. In case of “Cricoid pressure” all of the following are true except:  
(A) Requires a complete cricoid cartilage to be effective.  
(B) Should be performed with the neck extended.  
(C) Should be performed after 5 minutes of pre-oxygenation.  
(D) Compresses the oesophagus against the cervical vertebrae.
72. The recurrent laryngeal nerve supplies:  
(A) Sensation below the cords.  
(B) The intrinsic muscles of the pharynx.  
(C) The cricothyroid muscle.  
(D) The epiglottis.

73. Concerning the cervical sympathetic chain - all are true except:  
(A) It terminates as a plexus around the internal carotid artery.  
(B) The cervical cord gives grey rami to the cervical chain which relays and distributes with the cervical nerves.  
(C) The middle cervical ganglion is a constant feature.  
(D) The inferior cervical and the first thoracic ganglia may fuse.
74. Pulmonary hypertension is caused by:  
(A) Multiple pulmonary emboli.  
(B) Mitral stenosis.  
(C) Chronic obstructive airways disease.  
(D) Volatile anaesthetic agents.
75. The following is false of cardiopulmonary resuscitation (CPR):  
(A) 40% of patients leave hospital alive.  
(B) Outcome is related to delay in initiation.  
(C) 'New' CPR increases coronary blood flow.  
(D) Organ perfusion is due to pressure transmitted to great vessels via raised intrathoracic pressure.
76. Total parenteral nutrition for an average adult should include:  
(A) Magnesium.  
(B) 14 grams of nitrogen daily.  
(C) 1ml water for each kcal.  
(D) All of the above.
77. False statement regarding patients with haemorrhagic shock:  
(A) Physiological dead-space is increased.  
(B) Renal blood flow is decreased.  
(C) Antidiuretic hormone (ADH) secretion is increased.  
(D) The oxygen dissociation curve is shifted to the left.
78. An adult breathing 100% oxygen at sea level may suffer from:  
(A) Retrosternal chest pain.  
(B) Convulsions.  
(C) Dizziness.  
(D) Permanent visual damage.
79. Essential criteria for the diagnosis of brainstem death are except:  
(A) Equal pupils.  
(B) Absent doll's head response.  
(C) Patient's temperature must exceed 35°C.  
(D) PaCO<sub>2</sub> must exceed 6.5kPa at completion of apnoea testing.
80. Features of disseminated intravascular coagulation include all except:  
(A) A lowered fibrinogen level.  
(B) A normal prothrombin time and activated partial thromboplastin time.  
(C) May occur secondary to malaria.  
(D) May have a compensated phase with no bleeding.

81. Gram-negative septicaemic shock is associated with all except:  
(A) Urine output less than 0.5mL/kg per hour.  
(B) Disseminated intravascular coagulation.  
(C) Hypotension unresponsive to fluid loading.  
(D) High fever.
82. After head injury, increased intracranial pressure (ICP) is indicated by:  
(A) A fall in systemic blood pressure.  
(B) A reduction of the Glasgow coma score.  
(C) An increase in heart rate.  
(D) Small pupils.
83. In the diagnosis of brainstem death:  
(A) Consultation with a neurologist is needed.  
(B) An EEG must be flat for 24 hours.  
(C) Spinal reflexes may be present.  
(D) Blood must be sent for drug screening.
84. Immediately after complete transection of the spinal cord, the following occur:  
(A) Flaccid paralysis with loss of sensation and reflexes.  
(B) Loss of motor function and sensation with no loss of reflexes.  
(C) Loss of sensation but no loss of power.  
(D) Loss of power but no loss of sensation.
85. Neuropraxia:  
(A) Is more common after long operations.  
(B) Does not occur with local anaesthetics.  
(C) Does not occur with muscle relaxants.  
(D) Takes years to recover from.
86. Infant respiratory distress syndrome all are true except:  
(A) Usually occurs within 12 hours of delivery.  
(B) Has a better prognosis if steroids are given to the infant.  
(C) Is uncommon after 36 weeks' gestation.  
(D) Is more common in multiple pregnancies.
87. False statement regarding a pregnant woman at term:  
(A) Tidal volume is increased.  
(B) Functional residual capacity is increased.  
(C) Physiological dead-space is decreased.  
(D) Total vital capacity is reduced.
88. Anti-D antibodies that develop in a rhesus-negative mother with a rhesus-positive child, all are true except  
(A) Cause jaundice in the foetus  
(B) Foetal RBC are found in maternal circulation.  
(C) Occurs during the first trimester only.  
(D) Develop because of antigen crossing the placenta.
89. Cyanosis at birth occurs in all except:  
(A) Tetralogy of Fallot  
(B) Transposition of the great vessels  
(C) Patent ductus arteriosus  
(D) Ventricular septal defect

90. Recognised causes of stridor in infancy are all except:  
(A) Bronchiolitis  
(B) Tracheomalacia  
(C) Laryngotracheobronchitis  
(D) Epiglottitis.
91. The coeliac ganglion lies in relation with except:  
(A) ON the body of the 13th vertebra.  
(B) IN front of the aorta.  
(C) Behind the inferior vena cava.  
(D) Behind the pancreas.
92. Radiation is the emission of all except:  
(A) BETA particles.  
(B) ALPHA particles.  
(C) GAMMA rays.  
(D) Any waveform.
93. All are true regarding pulse oximetry except:  
(A) The alarm should be set at an oxygen saturation of 85%.  
(B) IS affected by bilirubin.  
(C) IS inaccurate with an oxygen saturation less than 70%.  
(D) IS affected by carboxyhaemoglobin.
94. Regarding pulmonary artery catheters in a normal person:  
(A) The pulmonary artery pressure is about 20/5mmHg  
(B) The CVP is about 5cmH<sub>2</sub>O  
(C) The right ventricular pressure is about 30/0mmHg  
(D) The internal jugular to wedged distance is about 70cm.
95. During a long operation, reliable monitors of core temperatures include:  
(A) A temperature probe in the rectum.  
(B) A quadriceps muscle temperature.  
(C) A temperature probe in the nasopharynx.  
(D) A temperature probe in the oesophagus at the level of the cricoid.
96. The following can be measured with a dry spirometer:  
(A) Expiratory reserve volume (ERV)  
(B) Functional residual capacity (FRC)  
(C) Closing volume  
(D) Total lung capacity (TLC)
97. All except are true regarding blood pressure measured by an automatic non-invasive method:  
(A) May over-read at high pressure  
(B) May over-read at low pressure  
(C) Is affected by arrhythmias  
(D) May cause ulnar nerve damage.
98. Recommendations to protect medical staff from AIDS include:  
(A) Gloves.  
(B) Gowns.  
(C) Goggles.  
(D) Autoclaving breathing systems.

99. In the elderly all are true except:
- (A) Chest wall compliance is decreased
  - (B) Vital capacity is decreased by 20mL each year
  - (C) Closing volume is less than FRC
  - (D) In a 70-year-old the alveolar/arterial oxygen difference is about 2.7kPa.
100. Which is the variable whose calculation is done according to the weight, height, and length known as:
- (A) Flowchart variables.
  - (B) Discrete variables.
  - (C) Continuous variables.
  - (D) Measuring variables.