

- 1) Diaphragm
 - a) T 10 aorta
 - b) T 12 oesophagus
 - c) Supplied by last 6 intercostal nerves
 - d) When stimulated peripherally, causes shoulder pain**

Ans: Caval opening T8, Esophageal opening T10, Aortic opening T12.

Central portion supplied by Phrenic C3,4,5 & peripheral by Intercostal nerves T5-11 & subcostal T12

- 2) All are central tendency except
 - a) Median
 - b) Mean
 - c) Mode
 - d) range**
- 3) Female in labour, developed cyanosis, dyspnoea and collapsed. All are possible except:
 - a) Aspiration
 - b) Venous air embolism
 - c) Amniotic fluid embolism
 - d) Exacerbation of airway problem**
- 4) Pre oxygenation
 - a) Started before in the ward
 - b) Done in the circuit with high flow and fitting mask**
 - c) After induction but before intubation
- 5) Patient 45 kg, started ventilation with tidal volume of 800 and rate of 12. Before incision , CO₂ = 25 and BP = 69/40, most probable cause;
 - a) Hyperventilation**
 - b) Pneumothorax
 - c) Pulmonary embolism

- 6) Thoracic aortic aneurysm usually presents with:
- a) Dysphagia
 - b) Back pain**
 - c) Neck pain
 - d) dyspnea
- 7) Neonates:
- a) Excrete K and can concentrate urine
 - b) Excrete K and can not concentrate urine
 - c) Excrete Na and can concentrate urine
 - d) Excrete Na and can not concentrate urine**
- 8) These antibiotics have muscle relaxant effect, except;
- a) Polymyxin
 - b) Clindamycin
 - c) Tetracyclin
 - d) ceftriaxone**
- 9) Patient with head trauma, for repair of humerus fracture:
- a) Hyperventilate to decrease ICP**
 - b) Keep systolic BP < 70
 - c) Keep MAP < 60
- 10) Sniffing position is:
- a) Head extended and neck flexed
- 11) With huge anterior mediastinal mass, safest way to secure airway:
- a) Inhalational induction and intubation
 - b) Iv induction and intubation
 - c) Fiber optic intubation**
 - d)
- 12) In chronic renal failure, all are possible except:

- a) Abrupt increase in CO₂ with acidosis
 - b) anemia
- 13) Induction of pediatric patient with halothane and suxa resulting in incomplete airway paralysis, this means:
- a) Normal finding
 - b) Only in abnormal acetyl cholinesterase
 - c) Malignant hyperthermia**
- 14) Suxa with myotonia:
- a) Cardiac arrest
 - b) Hyperkalemia next day
 - c) Inability to ventilate for 2-5 min**
 - d) Tachycardia for 5 min

Ans: Succinylcholine has abnormal response in Myotonia patients, troublesome intra-op muscle spasm including trismus leading to difficulty in intubation & ventilation.

- 15) Post intubation sore throat: (Repeated)
- a) Lubrication of tube with local anesthetic decreases incidence
 - b) Main complaint is hoarseness
 - c) Smaller size tubes has lower incidence**
 - d) Complain of throat dryness is less likely
 - e) Incidence 35%
- 16) Best position for fiber-optic intubation:
- a) Supine
 - b) Supine with neck flexed
 - c) Sitting with neck flexed**
 - d) Sitting with neck extended
- 17) Anesthesia for aortic stenosis:
- a) Keep atrial timing**

- b) Decrease preload
 - c) Decrease afterload
 - d) Sinus tachycardia
- 18) In anesthesia for patient with ALI, what is not important?
- a) Keep normal CO₂**
 - b) Keep transalveolar pressure < 35 cm H₂O
 - c) VT < 6-8 ml/kg
 - d) Balance between FIO₂ & PEEP
- 19) In pheochromocytoma, advantage of prazosin over phenoxybenzamine, all except:
- a) Short duration
 - b) Easy to titrate
 - c) Alpha 1 and Alpha 2 inhibition**
 - d) No Reflex tachycardia
- 20) Advantage of LMA over proseal LMA:
- a) High sealing pressure
 - b) Less gastric filling
 - c) Less aspiration
 - d) Helpful in failed intubation
- 21) During shoulder arthroscopy, pulmonary embolism: (repeated)
- a) N₂ change is earlier than CO₂
 - b) Tachycardia and hypotension are early signs**
 - c) TEE is qualitative but not quantitative
 - d) Oesophageal mill wheel murmur is early sign

Ans: Sensitivity of N₂ & CO₂ monitoring is same. TEE can detect as little as 0.02 ml/kg air. Sensitivity of Oesophageal mill wheel murmur is very low (1.7 ml/kg/min)

- 22) Baby with congenital left side diaphragmatic hernia, 12 hours after surgery develop dyspnea, tachypnea. By auscultation machine murmur is audible, more in left infraclavicular region, ECG shows LVH, most probable cause:
- a) VSD
 - b) PDA
 - c) ASD
 - d) Contralateral pneumothorax**
- 23) T wave all true except:
- a) Increase in digitalis toxicity**
 - b) Increase in hyperkalemia
 - c) Not more than 2 mv
 - d) Represent ventricular repolarization
- 24) Definition of OSA, all true except: (repeated)
- a) Apnea for at least 10 sec
 - b) Apnea more than 5 times/hr
 - c) Saturation decreased to at least 4%**
 - d) Pulmonary hypertension

Hypopnea- Decrease air flow 50% for 10 seconds with desaturation greater than 4%

- 25) Patient on warfarin affect factor:
- a) VII**
 - b) IX
 - c) VIII
 - d) X
- 26) Which is true about alfentanil:
- a) High Ionized fraction
 - b) Delayed onset of action
 - c) 90% protein bound**
 - d) Excreted unchanged

90% non-ionized, fast on onset, 92% protein bound, only small amount excreted unchanged.

27) Fentanyl all true except:

- a) Highly lipophobic
- b) Protein binding 84%
- c) Non-ionized fraction 8.5%
- d) 10 times potent to Morphine**

28) Jet ventilation is proper for all, except:

- a) ARDS
- b) Pneumothorax**
- c) TE fistula
- d) ENT

29) In 30 days old stored unit of blood, all true except:

- a) Decrease 2,3 DPG
- b) Acidosis
- c) Hemolysis
- d) Hypokalemia**

30) Causes of decrease O₂ delivery from haemoglobin all, except:

- a) Fever**
- b) Decrease 2,3 DPG
- c) CO poisoning
- d) Methemoglobinemia

31) Pulse oximetry is low in:

- a) CO poisoning
- b) Methylene blue injection**
- c) 85% in methemoglobinemia
- d) Henna nail polish

32) Regarding spinal anesthesia for patient on low molecular weight heparin:

- a) Wait 6 hours after last dose
- b) Wait 12 hours after last dose**
- c) Give dose after 12 hours of spinal
- d)

Wait 12-24 HRS after the last dose, can be resumed after 4-6 HRS

33) In ESRD:

- a) Make sure that last dialysis is 24 hours preop**
- b) Stop antihypertensive drugs on day of surgery
- c) Correct anemia
- d) Correct Nutrition

34) Human larynx:

- a) Lower border of hyoid till lower border of cricoid
- b) Epiglottis till lower border of cricoid**
- c) Epiglottis till lower border of thyroid cartilage
- d) Base of skull to lower border of cricoids cartilage

35) For shoulder surgery under nerve block, ulnar nerve is spared, block was:

- a) Supraclavicular
- b) Interscalene**
- c) Axillary
- d) Infraclavicular

- 36) If there is hypotension, retinal injury is more common in:
- a) High Myopia
 - b) Glaucoma**
 - c) Open eye injury
 - d) Cataract
- 37) Neuroleptanesthesia was given for craniotomy, 5 minutes after extubation, patient is apnic, cause is:
- a) Extra cranial hematoma
 - b) Laryngospasm
 - c) Opioid overdose**
 - d) Hangover anaesthesia
- 38) Placental transfer, all true except:
- a) Polarity of maternal drug**
 - b) High lipid solubility
 - c) Non ionized form of drug
 - d) Low molecular weight
- 39) All hormones are high in sepsis, except:
- a) T3**
 - b) Cortisol
 - c) Epinephrine
 - d) Glucagon
- 40) FRC decrease in all except:
- a) Pregnancy
 - b) Emphysema**
 - c) Obesity
 - d) Supine
- 41) Causes of residual fetal circulation, all except:
- a) Post maturity**
 - b) Infection
 - c) Hypoxia
 - d) Acidosis

- 42) GCS of no response, no eye movement and no motor movement is:
- a) 0
 - b) 1
 - c) 2
 - d) 3**
- 43) Blood volume of 10 kg infant is
- a) 500
 - b) 600
 - c) 800**
 - d) 900
- 44) Patient with controlled diabetes, and BP 190/90, mallampati III is
- a) ASA I
 - b) ASA II
 - c) ASA III**
 - d) ASA IV
- 45) Young pregnant female was advised bed rest for 30 weeks till CS. GA was done, after that she developed dyspnea, hemoptysis, pleuritic chest pain, this may be: (repeated)
- a) Fat embolism
 - b) Panic
 - c) Pulmonary embolism**
- 46) Lap. Cholecystectomy under GA, after insufflation, hypoxia, hypercarbia, increased airway pressure, hyper resonance on one side, decreased air entry:
- a) Capnothorax**
 - b) CO2 embolism
 - c) Endo bronchial intubation
 - d) Fat embolism
- 47) In sepsis;
- a) Increased BP
 - b) Increased lactate**
 - c) Bradycardia
 - d) Hypervolemia

48) For female with gestational diabetes, keep BSL:

- a) 150-250
- b) 200-250
- c) 90-150**
- d) 90-200

49) With family history of haemophilia, best test is:

- a) BT
- b) PT
- c) aPTT**
- d) ACT

50) Management of sickle cell patient;

- a) Dehydrate well
- b) Always shiver post op
- c) $\text{PaO}_2 < 50 \text{ mmHg}$
- d) Pain relief**

51) Halothane metabolism is by:

- a) Reduction
- b) Oxidation**
- c) Deflurination
- d)

52) Regarding rotameter, all are true except;

- a) O₂ and N₂O are interchangeable**
- b) O₂ should be last one in the series
- c) Thorpe tube
- d) Floats are designed to rotate constantly

53) Dura mater ends at:

- a) L1
- b) L3
- c) S_{2,3}**
- d) S5

54) Sufentanyl

- a) Long acting

- b) Delayed onset
- c) Ionized in blood**
- d) Secreted unchanged

Highly protein bound 93%, smaller degree of ionization,

- 55) Non cardiac cause of high cvp:
- a) Head up
 - b) Transducer up
 - c) High positive pressure ventilation**
- 56) Spinal cord from inside to outside:
- a) Pia, arachnoid, dura
- 57) Femoral artery is ----- to femoral vein:
- a) Lateral**
 - b) Medial
 - c) Anterior
 - d) Posterior
- 58) Difference between 8 mg and 2 mg of epidural morphine (repeated)
- a) Intense analgesia
 - b) Long duration**
 - c) More pruritis
 - d) Hypotension
 - e) Nausea and vomiting
- 59) 70 years old male underwent TURP under spinal anaesthesia with Xylocaine, next day he suffered pain in buttocks and thighs, relieved without any treatment, the cause is: (repeated)
- a) Lithotomy position
 - b) Dose of Xylocaine**
 - c) Size of needle

- 60) Air embolism is less dangerous in:
- a) **PDA**
 - b) VSD with pulmonary hypertension
 - c) TOF
 - d) Eisenmenger syndrome
- 61) First sign of air embolism:
- a) **Tachycardia, hypotension**
 - b) Millwheel murmur by esophageal stethoscope
 - c)
- 62) The muscle which shorten , relax vocal cord: (repeated)
- a) Cricothyroid
 - b) **Thyroarytenoid**
 - c) Lateral cricoarytenoid
 - d) Posterior cricoarytenoid
 - e) Anterior Cricothyroid

Posterior cricoarytenoid muscle abduct vocal cords, lateral cricoarytenoid adduct vocal cords. Cricothyroid is the only muscle of larynx which tense & elongate the vocal cords results in phonation.

- 63) Horner's syndrome, all true except:
- a) Ptosis
 - b) Miosis
 - c) **Sweating**
 - d) Conjunctival injection
- 64) Stellate ganglion block ---- develop difficulty in speech, that means:
- a) Pneumothorax
 - b) Phrenic nerve palsy
 - c) **Involvement of recurrent laryngeal nerve**
 - d)

65) 2 years old patient, susceptible to MH, all are true except:

- a) Release triggering
- b) Give Dantrolene**
- c) Call for help
- d) Dedicate anaesthesia machine

66) Patient on eye drops for glaucoma, take care of:

- a) Succinylcholine**
- b) Mivacurium
- c) Atracurium
- d) Magnesium

In fact Mivacurium also can be prolonged.

67) Patient for 10 days on ventilator developed lower lobe consolidation, tracheal aspirate culture shows gram stain:

- a) Start ceftazadime
- b) Start gentamicin
- c) Start both**
- d)

68) Hypocalcemic baby after 10 days of birth:

- a) Pierre rubin syndrome
- b) Treacher Collin syndrome
- c) Breast feeding
- d) Cow's milk**

69) ACLS certificate implies:

- a) Expertise in ACLS
- b) Successful course**

- c) Can do procedures in hospital and outside
- d) Can do things learned in the course

70) When temperature decreases 1 degree , metabolism decreases:

- a) 6-7%
- b) 10%
- c) 5-7%**
- d) 5-10%

71) Thiopental pH is:

- a) 6
- b) 8
- c) 7
- d) 10**

72) Chronic Low back pain decreases on flexion, radiates to legs, worst on walking, relieved on rest is:

- a) Spinal cord stenosis**
- b) Vertebral metastasis
- c) Sciatica
- d) Nucleus Pulposus

Sciatica relieve on walk & rest, Nucleus pulposus increase on flexion, vertebral mets: constant pain, cord stenosis decrease on flexion (Pseudoclaudication)

73) Healthy patient under GA with volatile anesthetics received blood transfusion, developed hepatitis:

- a) Volatile anesthetic related hepatitis**
- b) Bilirubin overload from blood transfusion
- c)

74) All of the following affect liver except:

- a) Hypertension
- b) Acidosis

- c) Hypovolemia
 - d)
- 75) In patient with chronic renal failure, use:
- a) Atracurium
 - b) Cisatracurium**
 - c) Pancuronium
 - d) Rocuronium
- 76) Which of the following does not cause tracheal shift:
- a) Right lobe collapse
 - b) Right fibrosis
 - c) Right pneumothorax
 - d) Right endobronchial intubation**
- 77) Cardiac index is:
- a) CO/BSA**
 - b) SV/HR
 - c) WT(kg)/Ht (cm)
- 78) The most important determinant of resistance through ETT during laminar flow is:
- a) Gas density
 - b) Diameter**
 - c) Length
 - d) Molecular weight
- 79) Treatment for unstable VF:
- a) Synchronized DC
 - b) Unsynchronized DC**
 - c)

- 80) During blood transfusion, patient developed hypotension, tachycardia, rash, redness on chest:
- a) Stop infusion, give Lasix
 - b) Stop infusion, give Lasix and NaHCO_3
 - c) Stop infusion, recheck blood, support BP & urine output**
 - d)
- 81) Patient $\text{SpO}_2 = 100\%$, $\text{PO}_2 = 95$, $\text{CO}_2 = 40$, $\text{Hb} = 10 \text{ gm/dl}$, to increase O_2 content to normal:
- a) Increase FiO_2 to 100%
 - b) Hyperventilate to CO_2 35
 - c) Give blood to reach Hgb to 15 gm/dl**
 - d)
- 82) To control diabetic patient under GA:
- a) Never give D5
 - b) Follow glucose in urine
 - c) Give insulin according to blood sugar level**
 - d)
- 83) The most important carrier of CO_2 in blood is:
- a) Plasma HCO_3^-**
 - b) Red cells HCO_3^-
 - c) Dissolved CO_2
 - d) Plasma proteins
- 84) Regarding MgSO_4 therapy for pre eclampsia, all are true except:
- a) Neonatal hypotension**
 - b) Renal failure
 - c) Respiratory depression
 - d) Cardiac arrest

85) Patient on dental chair develop ventricular fibrillation, the first line of treatment is:

- a) Epinephrine
- b) Intubation
- c) Atropine
- d) Defibrillation**

86) Patient with sepsis, $PCO_2 = 30$, $BE = -6$ and $pH = 7.22$

- a) Respiratory acidosis
- b) Metabolic alkalosis
- c) Compensated metabolic acidosis
- d) Uncompensated metabolic acidosis**

87) The most common cause of failure of O_2 delivery to patient is:

- a) Disconnection of patient with machine**
- b) Crossing of gas lines in theatre
- c) Mixing of gases
- d)

88) In neonates, spinal cord ends at:

- a) L1
- b) S5
- c) L3**
- d) L4

89) Patient in recovery room became unresponsive, apneic and pulseless with VF on monitor:

- a) Check pulse
- b) Check non-invasive BP
- c) Listen to heart sounds
- d) Intubate
- e) Defibrillate**

90) Equianalgesic dose to morphine 10 mg IM

- a) Buprenorphine 1 mg IM
- b) Pentazocine 1.2 mg IM
- c) Meperidine 50 mg IM
- d) Fentanyl 600 mcgs**

Buprenorphine 0.3-0.4 mg=10 mg Morphine, Meperidine is one tenth as potent as Morphine, Pentazocin 45 mg+10 mg Morphine. Fentanyl has clinical potency ratio of 50-100 times that of Morphine.