

**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO**

Test Booklet Series

T. B. C. : AP – 1 – 17/18

**A**

**TEST BOOKLET**  
**ASSISTANT PROFESSOR IN O.M.E.S.**  
**(ANAESTHESIOLOGY)**

Sl. No. **1033**

**Time Allowed : 3 Hours**

**Maximum Marks : 200**

**: INSTRUCTIONS TO CANDIDATES :**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO., TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.
5. This Test Booklet contains **200** items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses (answers) **ONLY** on the **separate Answer Sheet** provided by using **BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. **There will be no negative markings for wrong answers.**
8. Before you proceed to mark (darken) in the Answer Sheet the responses to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the *Answer Sheet* issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the **Test Booklet**, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

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**SEAL**

1. Which of the following hormone is important in the regulation of sodium ion concentration in the extracellular fluid ?
  - (A) Antidiuretic hormone
  - (B) Erythropoetin
  - (C) Aldosterone
  - (D) Renin
2. In case of liver disorders accompanied by a decline in microsomal enzyme activity the duration of action of some drugs in :
  - (A) Decreased
  - (B) Increased
  - (C) Remained unchanged
  - (D) Changed insignificantly
3. Most local anesthetic agents consist of :
  - (A) Lipophylic group (frequently an aromatic ring)
  - (B) Intermediate chain (commonly including an ester or amide)
  - (C) Amino group
  - (D) All of the above
4. The diagnostic triad of opioid overdose is :
  - (A) Mydriasis, coma and hyper-ventilation
  - (B) Coma, depressed respiration and miosis
  - (C) Mydriasis, chills and abdominal cramps
  - (D) Miosis, tremor and vomiting
5. Mechanism of action of sirolimus (rapamycin) is :
  - (A) Anti-idiotype antibodies against autoantibodies
  - (B) Modulation of CD3 receptor from the cell surface
  - (C) Inhibits calcineurin
  - (D) ADCC towards T lymphocytes
6. Which of the following synthetic steroids shows predominantly mineralocorticoid action ?
  - (A) Hydrocortisone
  - (B) Spironolactone
  - (C) Dexamethasone
  - (D) Fludrocortisone
7. Application of the transpulmonary thermodilution single indicator technique (PiCCO System) allows :
  - (A) The determination of continuous cardiac output
  - (B) Estimation of preload index (intrathoracic blood volume, ITBV)
  - (C) "Lung edema" index (extravascular lung water, EVLWI)
  - (D) All of the above

8. Atrial natriuretic peptide is an hormone that is made in the atria of the heart. The influence of the hormone is to \_\_\_\_\_.
  - (A) Enhance atrial contractions
  - (B) Activate the renin-angiotensin mechanism
  - (C) Prevent pH changes caused by organic acids
  - (D) Reduce blood pressure and blood volume by inhibiting sodium and water retention
9. Which of the following two organs function as the most important physiological buffer systems ?
  - (A) The lungs and the kidneys
  - (B) The adrenal glands and the tests
  - (C) The thyroid gland and the heart
  - (D) The stomach and the liver
10. Select the correct statement about renal mechanisms of acid-base balance :
  - (A) The kidneys are not able to excrete phosphoric acid
  - (B) Excreted hydrogen ions are unbound in the filtrate
  - (C) Kidney tubule cells are able to synthesize bicarbonate ion
  - (D) The kidneys are the most important mechanism for eliminating all bicarbonate ions
11. Effects of hypokalaemia :
  - (A) Short PR interval
  - (B) Ventricular extrasystoles
  - (C) Elevated ST segments
  - (D) Long QRS interval
12. The ion with lowest intracellular concentration is :
  - (A)  $\text{Na}^+$
  - (B)  $\text{HCO}_3^-$
  - (C)  $\text{Ca}^{2+}$
  - (D)  $\text{Mg}^{2+}$
13. All are the methods of measuring  $\text{O}_2$  in a gas mixture EXCEPT :
  - (A) Paramagnetic analyzer
  - (B) Clark electrode
  - (C) Infrared absorption
  - (D) Mass spectroscopy
14. Laminar flow is :
  - (A) Decreased by increased pressure
  - (B) Influenced by viscosity
  - (C) Influenced by density
  - (D) Proportional to 4th power of length
15. Carbon dioxide dissolved in blood follows which law ?
  - (A) Charle's law
  - (B) Avogadro's law
  - (C) Henry's law
  - (D) Dalton's law

16. Considering the effects of various volatile agents on cerebral blood flow under conditions of 1 MAC and normocarbina :
  - (A) Halothane produces greater increase than enflurane
  - (B) Isoflurane produces greater increase than enflurane
  - (C) Any change produced depends upon cerebral metabolic rate
  - (D) Change in cerebral blood flow is due to change in cardiac output
17. About pulmonary vascular resistance, false is :
  - (A) High at high lung volumes
  - (B) Low at low lung volumes
  - (C) Calculated using PCWP
  - (D) Decreased by nitrous oxide
18. The use of the peripheral nerve stimulator is based on
  - (A) Coulomb's law
  - (B) Newton's law
  - (C) Poiseuille's law
  - (D) Charle's law
19. An ideal nerve stimulator should be :
  - (A) Dedicated for use for peripheral nerve blocks
  - (B) A constant current generator
  - (C) A constant voltage generator
  - (D) Display the set current and the actual current delivered to the patient
20. Which of the following is the most effective definitive therapy for both prevention of recurrent variceal hemorrhage and control of ascites ?
  - (A) Endoscopic sclerotherapy
  - (B) Distal splenorenal shunt
  - (C) Esophagogastric devascularization (sugiura procedure)
  - (D) Side-to-side portacaval shunt
21. Which of the following parameter is not included in the Ranson's prognostic sings useful in the early evaluation of a patient with acute pancreatitis ?
  - (A) Elevated blood glucose
  - (B) Leukocytosis
  - (C) Amylase value greater than 1000 U per dl
  - (D) Serum lactic dehydrogenase (LDH) greater than 350 IU per dl
22. Which cause pain in acute inflammation ?
  - (A) C3a
  - (B) C5a
  - (C) PGE
  - (D) Bradykinin

23. False about Hepatitis B virus :
- (A) Is transmitted sexually
  - (B) Is the cause of Burkitt's lymphoma
  - (C) Is the cause of hepatocellular carcinoma
  - (D) Causes immune complex disease
24. Regarding brainstem tests, true is :
- (A) The pupillary reflexes examine the functions of the facial nerve and the trigeminal nerve
  - (B) Oculo-vestibular reflexes are examined by injecting warm saline into the middle ear
  - (C) Plasma potassium of less than  $4.0 \text{ mmol litre}^{-1}$  should be corrected before brainstem death testing
  - (D) Apnoea testing need only be completed once
25. In shock liver, what is incorrect ?
- (A) Liver enzymes are not elevated
  - (B) Centrilobular necrosis is present
  - (C) Infarction occurs after hepatic artery ligation in face of hypoperfusion
  - (D) It is associated with hypoperfusion of liver
26. False about hepatic artery blood flow :
- (A) It is approximately 20% of cardiac output
  - (B) Strenuous exercise increases hepatic artery flow
  - (C) Oxygen supply to liver by hepatic artery is 50%
  - (D) Hepatic artery mainly supplied biliary tree
27. Surgery and diabetes, all are true about preoperative evaluation, except :
- (A) Preoperative cardiovascular and renal assessments are very important
  - (B) Preoperatively, check signs of neuropathy and especially autonomic one
  - (C) Assess the overall glycemic control by  $\text{HbA}_{1\text{C}}$
  - (D) Continue long acting sulphonylureas
28. Action of insulin, all are true except :
- (A) Decreases lipolysis
  - (B) Enhances the action of lipoprotein lipase
  - (C) Enhances potassium and amino acid entry into cells
  - (D) Enhances glycogenesis and glycolysis

29. Complications of diabetic keto-acidosis, all are true except :
- (A) DIC is common
  - (B) Confusion, drowsiness and coma is seen up to 10%
  - (C) Thromboembolism
  - (D) Acute circulatory failure
30. All of the following statements are correct about potassium balance, except :
- (A) Most of potassium is intracellular
  - (B) Three quarter of the total body potassium is found in skeletal muscle
  - (C) Intracellular potassium is released into extra-cellular space in response to severe injury
  - (D) Acidosis leads to movement of potassium from extracellular to intracellular fluid compartment
31. All are the features of supreme LMA except :
- (A) Large inflatable posterior cuff
  - (B) Oesophageal drain tube
  - (C) Performed semi-rigid tube
  - (D) Fins in the mask bowl to prevent epiglottic obstruction
32. Immediate treatment of oculo-cardiac reflex is :
- (A) IV atropine
  - (B) Deepen plane of anaesthesia
  - (C) Beta-blocker
  - (D) Stopping muscle traction
33. The commonest cause of visual deficit following anaesthesia for major surgery is :
- (A) Central retinal artery occlusion
  - (B) Cortical blindness
  - (C) Glycine toxicity
  - (D) Ischemic optic neuropathy
34. The American Heart Association guidelines for pre-operative cardiac risk assessment define poor functional capacity as being only able to exercise at a level of less than 4 METS (metabolic equivalents). An exercise capacity of 4 METS would correspond to :
- (A) Light housework such as dishwashing
  - (B) Heavy work around the house such as moving heavy objects
  - (C) Jogging for 2 kilometres
  - (D) Walking briskly on level ground (6 kilometers per hour)

35. Detrimental post-operative effects of hypothermia following general anaesthesia in the elderly include each of the following EXCEPT :
- (A) Delayed emergence
  - (B) Hypercoagulability
  - (C) Increased body metabolism
  - (D) Reduced elimination of anaesthetic agents
36. A patient with a head injury who has eye opening to speech, no verbal responses and withdrawal motor responses would have a Glasgow Coma Scale score of :
- (A) 4
  - (B) 5
  - (C) 6
  - (D) 8
37. When optimising patients for surgery using goal-directed therapy, which of the following parameters is LEAST useful ?
- (A) Blood pressure
  - (B) Cardiac index
  - (C) Oxygen saturation of blood aspirated from a central venous catheter
  - (D) Stroke volume variability
38. When using osmotic agents to reduce Intracranial Pressure (ICP), the patient's serum osmolality should not be allowed to exceed :
- (A) 280 mOsmol/L
  - (B) 300 mOsmol/L
  - (C) 320 mOsmol/L
  - (D) 340 mOsmol/L
39. Thoracic epidural blockade to T5 using bupivacaine 0.5% with adrenaline 1:200,000 involves :
- (A) Blockade of resistance vessels
  - (B) Blockade of capacitance vessels
  - (C) Stimulation of cardiac sympathetic nerves, causing bradycardia
  - (D) Beta-adrenergic stimulation
40. The nerve roots which usually conduct the pain of uterine contraction and cervical dilatation in the first stage of labour are :
- (A) T8 – T12
  - (B) T10 – L1
  - (C) T11 – L2
  - (D) T12 – L4
41. The third modality to be blocked with spinal anaesthesia is :
- (A) Touch
  - (B) Pain
  - (C) Autonomic efferents
  - (D) Proprioception

42. Stellate ganglion is located :
- (A) At the level of the body of C6 (spine of C6)
  - (B) Posterior to the brachial plexus sheath
  - (C) Anterior to the dome of the pleura
  - (D) Anterior to the thoracic duct
43. At the wrist joint :
- (A) The median nerve lies between the tendons of palmaris longus and flexor carpi radialis
  - (B) The median nerve lies medial to the tendon flexor carpi ulnaris
  - (C) The radial artery is usually palpable just medial to the tendon of flexor carpi radialis
  - (D) The ulnar artery and nerve enter the hand by passing deep to the flexor retinaculum
44. The sciatic nerve supplies the following muscles EXCEPT :
- (A) Biceps femoris
  - (B) Semitendinosus
  - (C) Semimembranosus
  - (D) Gluteus maximus
45. What is the anatomic location of the celiac plexus ?
- (A) Anterior to the body of L1
  - (B) Lateral to adrenals and kidneys
  - (C) Surrounding the IVC
  - (D) Posterior to the crus of the diaphragm
46. Muscles which abduct the vocal cords include the :
- (A) Aryepiglottic
  - (B) Cricothyroid
  - (C) Lateral cricoarytenoid
  - (D) Posterior cricoarytenoid
47. During scoliosis surgery with monitoring of somatosensory evoked potentials, which tract are they mainly monitoring ?
- (A) Dorsal column
  - (B) Spinothalamic tract
  - (C) Lateral corticospinal tract
  - (D) Cerebrospinal tract
48. Cryoprecipitate contains each of the following clotting factors EXCEPT :
- (A) Factor VIII
  - (B) Factor IX
  - (C) Fibrinogen
  - (D) von Willebrand factor
49. In trauma patients, the main mechanism by which hypothermia exacerbates bleeding is by :
- (A) Altering blood viscosity
  - (B) Causing disseminated intravascular coagulation
  - (C) Inhibiting clotting factors
  - (D) Reducing platelet function and number



50. A 59-year-old male is admitted with major trauma following an automobile accident. His blood type is O-negative, but you are out of O-negative blood. Which of the following blood products would be UNACCEPTABLE to transfuse ?
- AB positive red cells
  - A negative platelets
  - O positive red cells
  - AB positive FFP
51. Characteristic cardio-pulmonary effects of pulmonary thromboembolism include :
- Hypoxaemia due to excess perfusion of lung units with a low V/Q ratio
  - Hypercarbia due to an increase in physiological dead-space
  - Reverse splitting of the second heart sound
  - An increase in compliance of the left ventricle
52. Plasma glucose level compared to blood glucose level is :
- 32% higher
  - 14% higher
  - 14% lower
  - 32% lower
53. Which of the following concerning average lung volumes and capacities of a person at rest is TRUE ?
- TLC > VC > TV > FRC
  - TLC > FRC > VC > TV
  - TLC > VC > FRC > TV
  - TLC > FRC > TV > VC
54. If a patient's blood carries 10 grams of HB per deciliter, what is the O<sub>2</sub> carrying capacity of his blood ?
- 18 milliliters per deciliter
  - 20 milliliters per deciliter
  - 10 milliliters per deciliter
  - 13 milliliters per deciliter
55. Which of the following is NOT a form by which CO<sub>2</sub> can be transported in the blood ?
- As bicarbonate
  - Dissolved in the blood
  - Bound to the amino end groups in proteins
  - Bound to the imidazole ring of glutamate
56. Which of the following factors is used to calculate the Child-Pugh score ?
- Uncontrolled variceal bleeding
  - Nutritional status
  - Encephalopathy
  - Renal insufficiency

57. Which of the following elements of an apnea test would determine that a potential donor is NOT brain dead after removal from the respirator for 10 min ?
- (A)  $\text{PaO}_2 > 13.3 \text{ kPa}$  (100 mmHg)
  - (B) Absence of chest movements
  - (C)  $\text{PaCO}_2 < 5.3 \text{ kPa}$  (40 mmHg)
  - (D)  $\text{PaO}_2 < 6.7 \text{ kPa}$  (50 mmHg)
58. 40% oxygen via a facemask is appropriate oxygen therapy for a patient with :
- (A) A shunt equivalent to 40% of cardiac output due to pneumonia
  - (B) A reduced minute volume due to opioid analgesia
  - (C) Complete upper airway obstruction
  - (D) Hypovolemia shock
59. The  $\text{PO}_2$  false is :
- (A) In the trachea while breathing air is about 150 mmHg
  - (B) In the alveoli can exceed 600 mmHg when breathing 100% oxygen
  - (C) Of venous blood may fall when cardiac output is very low
  - (D) In the mitochondria in the brain is higher than in venous blood
60. Size E cylinder of the following gases measures 1900 psig, EXCEPT :
- (A) Oxygen
  - (B) Nitrous oxide
  - (C) Air
  - (D) Nitrogen
61. The operation of a standard cylinder pressure gauge is based on the :
- (A) Critical flow rate principle
  - (B) Bernoulli principle
  - (C) Fixed orifice principle
  - (D) Bourdon tube principle
62. About thromboelastography parameters, correct statement is/are :
- (A) The reaction time, R, represents the time for initial fibrin formation
  - (B) The K value is a measure of the speed of clot formation
  - (C) MA (normal is 50 to 60 mm) is an index of clot strength
  - (D) All of the above
63. Prothrombin time measures integrity of :
- (A) Extrinsic and common coagulation pathways
  - (B) Intrinsic and common coagulation pathways
  - (C) Extrinsic coagulation pathway
  - (D) Intrinsic coagulation pathway

64. The initial reduction in core temperature in general anaesthesia is due to :
- (A) Ablation of thermoregulatory vasoconstriction
  - (B) Conductive heat loss
  - (C) Evaporative heat loss in respiratory tract
  - (D) Redistribution of heat from core to periphery
65. All of the following agents have elimination half lives of a few minutes, EXCEPT :
- (A) Dobutamine
  - (B) Isoproterenol
  - (C) Amrinone
  - (D) Norepinephrine
66. MELD risk score is based on the following factors, except :
- (A) Albumin
  - (B) International Normalized Ratio
  - (C) Creatinine
  - (D) Bilirubin
67. The following drugs may be used effectively via a tracheal tube, EXCEPT :
- (A) Atropine
  - (B) Sodium bicarbonate
  - (C) Adrenaline
  - (D) Lidocaine
68. In the Venturi oxygen mask, true is :
- (A) The delivered oxygen concentration falls when the flow is decreased from 5 to 2 L/min
  - (B) Rebreathing is likely
  - (C) Increasing the diameter of the constriction increases the oxygen concentration
  - (D) Occluding the holes in the side of the mask decreases the oxygen concentration
69. The action of the following may be prolonged in patients with abnormal plasma cholinesterase :
- (A) Prilocaine
  - (B) Atracurium
  - (C) Procaine
  - (D) Bupivacaine
70. The critical temperature, false is :
- (A) The temperature above which a gas cannot be liquified by pressure alone
  - (B) The temperature below which a gas does not vaporize
  - (C) 36.5 degrees C for nitrous oxide
  - (D) Different if a substance is in a mixture rather than on its own

71. The following drug penetrate the blood/brain barrier :
- (A) Physostigmine
  - (B) Dopamine
  - (C) Glycopyrrolate
  - (D) Norepinephrine
72. The following may be found in normal adult venous blood, except :
- (A) 3% carboxyhaemoglobin
  - (B) 70% oxyhaemoglobin
  - (C) 2% free haemoglobin
  - (D) 2% haemoglobin F
73. Pulse pressure :
- (A) Increases with decrease in the velocity of blood flow
  - (B) Independent of the compliance of the arterial tree
  - (C) Is higher in peripheral arteries than that in the aorta
  - (D) Is low in high cardiac output states
74. Regarding physics applied to anaesthesia, incorrect statement is :
- (A) The mass of a gas that dissolves in a liquid is proportional to its partial pressure
  - (B) A tube whose radius exceeds its length is called an orifice
  - (C) Bipolar cautery does not need a dispersive ground plate electrode
  - (D) In bipolar cautery, if the dispersive pad is not in proper contact with the skin, burn can occur around the ECG electrode
75. Amiodarone the false statement is :
- (A) Blocks the potassium channels
  - (B) Shortens the refractory period of myocardium and entire conducting tissues
  - (C) Has a elimination half-life of approximately 28 days
  - (D) May result in pulmonary fibrosis on prolonged use
76. The following result in an increase in physiological dead space except :
- (A) Positive end-expiratory pressure
  - (B) Venous air embolism
  - (C) Hypotension
  - (D) Obesity

77. Regarding central venous pressure monitoring all are true except :
- (A) The tip of the catheter must be in the right atrium
  - (B) Cannon waves are seen in presence of junctional rhythm
  - (C) y descent is due to opening of the tricuspid valve
  - (D) x descent occurs during ventricular systole
78. Compared with that of a normal adult, the newborn infant's :
- (A) Blood-brain barrier is less permeable to bilirubin
  - (B) Heat regulation is more efficient because of its ability to metabolise brown fat
  - (C) Blood has a greater affinity for oxygen pressures
  - (D) Carbohydrate reserve is greater
79. Nitric oxide :
- (A) Is available as compressed gas in cylinders
  - (B) Side-effects are related to metabolic by-products
  - (C) Is useful in treating methaemoglobinemia
  - (D) In therapeutic concentrations can cause brain damage
80. When lung compliances decreases the patient commonly has :
- (A) Increased respiratory rate and decreased tidal volume
  - (B) Decreased respiratory rate and tidal volume
  - (C) Increased respiratory rate and tidal volume
  - (D) Decreased respiratory rate and increased tidal volume
81. All of the following are true about magnesium and anaesthesia except :
- (A) Decreases the duration of neuromuscular blockade
  - (B) It is used in the seizure prophylaxis in severe preeclampsia
  - (C) The therapeutic range is between 5 to 9 mg/dl
  - (D) Increases post partum bleeding
82. During intermittent positive pressure ventilation, which one of the following statements is true ?
- (A) Mean intrathoracic pressure will be lower than during spontaneous breathing
  - (B) Right ventricular filling rises secondary to raised pulmonary vascular resistance
  - (C) PEEP will reinflate collapsed alveoli
  - (D) Left ventricular workload may decrease

83. At high altitude (e.g. 6000 m), the false statement is :  
 (A)  $\text{FIO}_2$  is 0.21  
 (B) The saturated vapour pressure of water is 6.3 kPa at 37°C  
 (C) The boiling point of water would be high  
 (D) Hypoxia predominates the ventilatory drive
84. All of the following are components of severe preeclampsia includes all except :  
 (A) Blood pressure > 160/110  
 (B) Epigastric pain  
 (C) Proteinuria of 300 mg/24 hr  
 (D) IUGR
85. Which one of the following does not cause error in the measurement of oxygen saturation by pulse oximetry ?  
 (A) Haemoglobin S  
 (B) Methylene Blue  
 (C) Severe Anaemia  
 (D) Acute severe hypoxia
86. The timing of inflation in intraaortic balloon counterpulsation device is synchronised for :  
 (A) Peak systole  
 (B) Dicrotic notch  
 (C) Peak diastole  
 (D) Early systole
87. Atropine antagonises the action of :  
 (A) Some of the effects of morphine  
 (B) Acetylcholine at the neuromuscular junction  
 (C) Trimetaphan at the autonomic ganglia  
 (D) Pilocarpine on the pupil
88. Buprenorphine :  
 (A) Causes little nausea and vomiting  
 (B) Has a respiratory depressant action antagonised by naloxone  
 (C) May cause withdrawal symptoms in morphine addicts  
 (D) Must be given parenterally
89. Regarding pain transmission :  
 (A) A delta fibres and C fibres are unmyelinated  
 (B) Visceral pain is carried by myelinated sympathetic fibres  
 (C) Sharp pain is transmitted by C fibres while dull aching pain is transmitted by A beta fibres  
 (D) Besides pain, Ad- and C fibres also carry touch and temperature sensation

90. Regarding physics applied to anaesthesia, incorrect statement is :
- (A) The mass of a gas that dissolves in a liquid is proportional to its partial pressure
  - (B) A tube whose radius exceeds its length is called an orifice
  - (C) Bipolar cautery does not need a dispersive ground plate electrode
  - (D) In bipolar cautery, if the dispersive pad is not in proper contact with the skin, burn can occur around the ECG electrode
91. The incorrect statement regarding enflurane is :
- (A) When metabolised is converted to form inorganic fluoride ions
  - (B) At high concentration can cause seizures when associated with low  $\text{PaCO}_2$
  - (C) Depresses hypoxic pulmonary vasoconstriction
  - (D) Increases uterine tone and contractility
92. Midazolam :
- (A) Has a half-life of more than 4 hours
  - (B) Is water soluble at a pH 4
  - (C) Has no active metabolite
  - (D) Can have a reduced effect if given with erythromycin
93. When using a nerve stimulator to monitor neuromuscular blockade :
- (A) A minimum of 30 seconds must be left between train of four (T-O-F) stimuli
  - (B) Tetanic fade suggests inadequate reversal of blockade
  - (C) Recovery of 25% single twitch height is the same as return of 1st twitch of T-O-F
  - (D) Ability to raise the head for 5 seconds corresponds to 50% twitch height recovery
94. Regarding anaesthetic breathing systems :
- (A) Rebreathing does not occur in Mapleson D during controlled ventilation
  - (B) With a fresh gas flow (FGF)  $< 1.5 \text{ L}$ , volatile concentration in breathing system may be higher than the dial setting of the vaporiser
  - (C) In circle system with a FGF  $< 1 \text{ L}$  ( $\text{N}_2\text{O}:\text{O}_2 = 66:34$ ),  $\text{FIO}_2$  in the circle may increase over time
  - (D) A FGF of 3 times the minute volume may be needed to prevent rebreathing in Bain's co-axial system during spontaneous ventilation

95. Regarding drug metabolism :

- (A) Oral opioid have a negligible first-pass effect
- (B) Thiopentone in the dose used for induction will induce the hepatic enzymes
- (C) Anticonvulsants have little effect on hepatic microsomal enzymes
- (D) Metronidazole appears to inhibit hepatic microsomal enzymes

96. Concerning pain, the incorrect statement is :

- (A) Transmission occurs in the lateral spinothalamic tracts
- (B) It may be modulated at a spinal level by endorphinergic interneurons
- (C) It is modified at a spinal level by descending fibres from the periaqueductal grey matter of the mid-brain
- (D) Fibres from the occipital cortex inhibit thalamic interpretation of pain

97. Tachyphylaxis occurs during treatment with all except :

- (A) Ephedrine
- (B) Sodium nitroprusside

(C) Suxamethonium

(D) None of the above

98. The oxyhaemoglobin dissociation curve is :

- (A) The dissociation constant of oxygen
- (B) A reflection of the efficiency of oxygen transport
- (C) The same shape and position for haemoglobin A and myoglobin
- (D) Only of sigmoid shape in vivo

99. Regarding Warfarin the incorrect statement is :

- (A) Competes with Vitamin K
- (B) Displaces phenylbutazone from plasma protein binding sites
- (C) Is contraindicated in malignant hypertension
- (D) Prevents normal fibrinolysis

100. Concerning opioid-induced muscle rigidity :

- (A) It is commonly seen with very high doses of opioid
- (B) It is more commonly seen with concomitant use of nitrous oxide
- (C) It can be reversed by naloxone
- (D) Both (A) and (C)



101. For intravenous anaesthetic agents, incorrect statement is :
- (A) The end point of induction of anaesthesia is loss of the eyelash reflex
  - (B) Lower doses will be required for induction in hypovolaemic patients
  - (C) The effects on the CNS depends on their degree of ionisation
  - (D) Their non-protein bound fraction increase in liver and renal diseases
102. Which is not the effect of acidosis ?
- (A) Increased minute ventilation
  - (B) Shift of the oxygen dissociation curve due to the Bohr effect
  - (C) Negative inotropism due to higher calcium levels
  - (D) Hyperkalaemia
103. When a patient is using a monoamine oxidase inhibitor, which drug can be used ?
- (A) Halothane
  - (B) Pethidine
  - (C) Adrenaline
  - (D) Dopexamine
104. A more rapid induction of anaesthesia will occur using an inhalational agent if :
- (A) The agent is highly soluble in blood
  - (B) The patient has a low cardiac output
  - (C) The agent has a low blood/gas solubility coefficient
  - (D) A low flow circle system is used
105. Lower oesophageal sphincter pressure is decreased by all except :
- (A) Opiates
  - (B) Atropine
  - (C) Gastrin
  - (D) Dopamine
106. The incorrect statement regarding Rocuronium :
- (A) Is an aminosteroid
  - (B) Is stable in aqueous solution
  - (C) Undergoes principally renal elimination
  - (D) Can provide intubating conditions within 60 seconds
107. Amiodarone, the false statement :
- (A) Blocks the potassium channels
  - (B) Shortenes the refractory period of myocardium and entire conducting tissues
  - (C) Has a elimination half-life of approximately 28 days
  - (D) May result in pulmonary fibrosis on prolonged use

108. Concerning absorption of carbon dioxide in breathing system all are correct except :
- (A) Soda lime granules are sized 4-8 mesh
  - (B) Baralyme contains calcium hydroxide in addition to barium hydroxide
  - (C) Dry soda lime absorbs more carbon dioxide
  - (D) Carbon dioxide first reacts with sodium and potassium hydroxide of soda lime
109. All the followings are ethers except :
- (A) Sevoflurane
  - (B) Halothane
  - (C) Desflurane
  - (D) Enflurane
110. Toxicity from hyperbaric oxygen therapy can cause :
- (A) Painful joints
  - (B) Acute tubular necrosis
  - (C) Convulsions
  - (D) Bradycardia
111. Statistical tests are used to :
- (A) Eliminate observer bias
  - (B) Eliminate placebo effect
  - (C) Show that results are true
  - (D) Show that the results did not occur by chance
112. Which of the following is not a risk factor for post operative nausea and vomiting ?
- (A) History of smoking
  - (B) Previous history of motion sickness
  - (C) Female gender
  - (D) Use of opioid
113. In a patient with severe hypovolaemia, the incorrect statement is :
- (A) Physiological dead-space increases
  - (B) Arterio-venous oxygen difference decreases
  - (C) Alveolar-arterial oxygen difference decreases
  - (D) Minute volume increases
114. The following result in an increase in physiological dead space except :
- (A) Positive end-expiratory pressure
  - (B) Venous air embolism
  - (C) Hypotension
  - (D) Obesity
115. The resistance of the airways :
- (A) Is constant in a given subject
  - (B) Depends on the pressure drop across the airways
  - (C) Is lesser in turbulent flow than in laminar flow
  - (D) Is inversely proportional to the density of the gases

116. Midazolam the incorrect statement :

- (A) Is an anticonvulsant
- (B) Is lipid soluble at physiological pH
- (C) Has no active metabolites
- (D) Can be administered as nasal drops for premedication

117. Non-depolarising relaxants :

- (A) Cannot cross the blood-brain barrier
- (B) May affect the smooth muscles
- (C) Are needed at values of 2-3 times their ED<sub>95</sub> for endotracheal intubation
- (D) Cannot cross the placenta

118. The rotameters :

- (A) Are variable orifice flowmeters
- (B) Produce a variable pressure drop across the bobbin
- (C) Produce laminar flow at high flow rates
- (D) Are accurate to within  $\pm 0.5\%$

119. Concerning local anaesthetics :

- (A) They are absorbed more rapidly after intercostal block than after caudal administration

(B) In the foetus they are able to cross the placenta as readily as from the mother

(C) They are weak acids

(D) Those which are esters are rapidly metabolised by liver enzymes

120. Regarding central venous pressure monitoring all are true except :

(A) The tip of the catheter must be in the right atrium

(B) Cannon waves are seen in presence of junctional rhythm

(C) y descent is due to opening of the tricuspid valve

(D) x descent occurs during ventricular systole

121. Regarding mivacurium, the incorrect statement is :

(A) It releases more histamine than atracurium in equipotent doses

(B) It is broken down by plasma cholinesterase as rapidly as suxamethonium

(C) It is a bisquaternary benzylisoquinolinium compound

(D) At an equipotent doses it has a similar onset of action to pancuronium

122. Total body oxygen consumption can be measured by the following methods except :

- (A) Oxygen loss from a closed breathing system
- (B) Subtraction of expired from inspired volume of oxygen
- (C) Ventilated hood technique
- (D) Tissue  $PO_2$  electrodes

123. Regarding suxamethonium myalgia :

- (A) It commonly occurs in day care patients
- (B) A rise in plasma creatinine phosphokinase and myoglobin is related to the severity of muscle pain
- (C) The severity of muscle pain is related to strength of muscle fasciculations
- (D) Intravenous lidocaine before suxamethonium may completely abolish the muscle pain

124. The following statements about end-tidal  $CO_2$  are true except :

- (A) Normal variation in barometric pressure at sea level is unlikely to influence end-tidal  $CO_2$
- (B) Rebreathing can raise end-tidal  $CO_2$  if the minute ventilation remains unchanged

(C) A decrease in cardiac output increases the end-tidal  $CO_2$

(D) Discontinuation of  $N_2O$  at the end of anaesthesia may transiently reduce the end-tidal  $CO_2$

125. Compared with that of a normal adult, the newborn infant's :

- (A) Blood-brain barrier is less permeable to bilirubin
- (B) Heat regulation is more efficient because of its ability to metabolise brown fat
- (C) Blood has a greater affinity for oxygen pressures
- (D) Carbohydrate reserve is greater

126. In a patient with a low cardiac output, the following are true of inhalational anaesthetic agents :

- (A) A lower inspired anaesthetic concentration will be required to induce anaesthesia
- (B) It would take longer to reach a given depth of surgical anaesthesia
- (C) The rate at which alveolar approaches inspired anaesthetic concentrations is faster
- (D) A higher inspired anaesthetic concentration is required to reach the same brain anaesthetic concentration

127. Nitric oxide :

- (A) Is available as compressed gas in cylinders
- (B) Side-effects are related to metabolic by-products
- (C) Is useful in treating by-products
- (D) In therapeutic concentrations can cause brain damage

128. Regarding west zone IV of lungs, true is :

- (A)  $P_{alv} > P_{pa} > P_{la}$
- (B)  $P_{pa} > P_{la} > P_{alv}$
- (C)  $P_{pa} > P_{alv} > P_{la}$
- (D)  $P_{la} > P_{pa} > P_{alv}$

129. Normal damping coefficient of invasive BP monitoring system :

- (A) 0.25 – 0.40
- (B) 0.30 – 0.50
- (C) 0.45 – 0.60
- (D) 0.50 – 0.70

130. Which of the following drugs has a direct toxic effect of hepatocytes ?

- (A) Acetaminophen
- (B) Chlorpromazine
- (C) Halothane
- (D) Isoniazid

131. According to NIOSH regulations, the highest concentration of volatile anesthetic contamination allowed

in the OR atmosphere when administered in conjunction with  $N_2O$  is :

- (A) 0.5 ppm
- (B) 2 ppm
- (C) 5 ppm
- (D) 25 ppm

132. In a given patient, if a creatinine of 1.0 corresponds to a glomerular filtration rate (GFR) of 120 mL/min, a creatinine of 4.0 would correspond to :

- (A) 20 mL/min
- (B) 30 mL/min
- (C) 40 mL/min
- (D) 50 mL/min

133. Fenoldopam may be used as an alternative to which of the following ?

- (A) Phenylephrine
- (B) Dopexamine
- (C) Dopamine
- (D) Sodium nitroprusside

134. Ketorolac is contraindicated in patients undergoing scoliosis surgery because of :

- (A) Renal effects
- (B) Risk of postoperative hemorrhage
- (C) Effects on bone healing
- (D) Paradoxical effect with bone pain

135. Which local anesthetic undergoes the LEAST hepatic clearance ?

- (A) Chloroprocaine
- (B) Bupivacaine
- (C) Etidocaine
- (D) Prilocaine

136. Myocardial  $O_2$  consumption of fibrillating heart at 22 degree is :

- (A) 0.3 mL / 100 g / min
- (B) 1.3 mL / 100 g / min
- (C) 2.0 mL / 100 g / min
- (D) 3.5 mL / 100 g / min

137. Prolonged Extracorporeal Membrane Oxygenation (ECMO) :

- (A) Is highly successful in the treatment of severe respiratory failure in newborn infants
- (B) Is contraindicated in adult respiratory distress syndrome (ARDS)
- (C) Causes hemolysis and renal failure
- (D) Requires total systemic heparinization (activated clotting time longer than 500 seconds)

138. The diagnosis of myasthenia gravis can be confirmed most reliable using :

- (A) Anti-acetylcholine receptor antibody titers

(B) The Tensilon test

(C) Electromyography (EMG)

(D) Single-fibre EMG

139. Commonly cited reasons for using colloids include :

- (A) Slow plasma expansion
- (B) Less administered volume
- (C) Less pulmonary and other organ oedema
- (D) Benefits on microcirculation, blood rheology and inflammatory mediators

140. All are the true about aprotinin except :

- (A) High molecular-wt serine-protease inhibitor
- (B) Powerful inhibitor of plasmin at low conc ( $> 50$  KIU / mL)
- (C) Inhibitory action on kallikrein and leucocyte-derived proteases, such as elastase at higher concentrations ( $> 200$  KIU/mL)
- (D) Extracted from bovine lung

141. All are true about the systemic inflammatory response except :

- (A) Temperature  $> 38^\circ\text{C}$  or  $< 36^\circ\text{C}$
- (B) Heart rate  $> 90$  beats/min
- (C) Respiratory rate  $> 30$  breaths/min or  $\text{PaCO}_2 < 32$  torr
- (D) WBC  $> 12,000$  cells/ $\text{mm}^3$

142. Which of the following antiseptics is suitable for hand washing ?
- (A) Phenol
  - (B) Lysol
  - (C) Formalin
  - (D) Chlorhexidine
143. Significant Q waves and ST elevation in VI-V4 are the features of :
- (A) Inferior wall infarction
  - (B) Antero-septal infarction
  - (C) True posterior wall infarction
  - (D) Atrial infarction
144. Enoxaparin, dalteparin and parnaparin are low molecular weight heparins; they offer all of the following advantages over unfractionated heparin, except :
- (A) They have more predictable pharmacokinetic characteristics
  - (B) APTT monitoring is not required
  - (C) Bleeding chances are lesser
  - (D) They have longer duration of action requiring once or twice daily administration
145. All of the following inhalational agents inhibit ciliary activity except :
- (A) Ether
  - (B) Desflurane
  - (C) Methoxyflurane
  - (D) Sevoflurane
146. Who started the ABC of Cardio Pulmonary Resuscitation ?
- (A) Peter Safar
  - (B) John Snow
  - (C) Laerdal
  - (D) Brooke
147. Percutaneous tracheostomy cannot be performed in all of the following conditions except :
- (A) Paediatric patients less than 10 years of age
  - (B) Elective tracheostomy in intubated patients
  - (C) Critically ill intubated patients
  - (D) PEEP > 20 cm H<sub>2</sub>O
148. All of the inhalational agents increase respiratory rate and decrease tidal volume with increasing concentrations except :
- (A) Halothane
  - (B) Xenon
  - (C) Nitrous Oxide
  - (D) Desflurane
149. All of the following are dual modes of ventilation except :
- (A) APRV
  - (B) PRVC
  - (C) Proportional assist ventilation
  - (D) Bipap

150. The ideal negative pressure for suctioning trachea in an infant should be :
- (A) 80 to 150 mm Hg
  - (B) 60 to 80 mm Hg
  - (C) <20 mm Hg
  - (D) 150 to 200 mm Hg
151. An anaesthesiologist is using type E cylinder (cylinder factor = 0.28) at a flow rate of 4L/min for shifting a patient to tertiary care centre. How long will the cylinder last if the pressure in the cylinder is 1000psig.
- (A) 70 min
  - (B) 7 hours
  - (C) 15 min
  - (D) 6 hrs
152. When lung compliances decreases the patient commonly has ?
- (A) Increased respiratory rate and Decreased tidal volume
  - (B) Decreased respiratory rate and tidal volume
  - (C) Increased respiratory rate and tidal volume
  - (D) Decreased respiratory rate and increased tidal volume
153. The major factor decreasing the local anaesthetic requirement in pregnant patients receiving neuraxial anaesthesia is :
- (A) Mechanical effects of enlarged uterus
  - (B) Hormonal changes of pregnancy
  - (C) Altered pharmacokinetics of the drug
  - (D) Decrease in CSF specific gravity
154. Which of the following diagnostic modality has highest sensitivity of detecting the occurrence of venous air embolism ?
- (A) End tidal carbon dioxide
  - (B) Pulmonary artery pressure monitoring
  - (C) Precordial Doppler
  - (D) Trans esophageal echocardiography
155. Indications of Infective endocarditis prophylaxis in perioperative period according to ACC 2008 guidelines are all except :
- (A) Unrepaired cyanotic congenital heart disease
  - (B) Prosthetic heart valves
  - (C) Valvular heart disease
  - (D) History of endocarditis
156. The cardiac grid in the anaesthetic management of aortic regurgitation includes all except :
- (A) High normal heart rate
  - (B) Increased afterload
  - (C) Increased preload
  - (D) Maintain contractility



157. All of the following are components of severe preeclampsia includes all except:

- (A) Blood pressure > 160/110
- (B) Epigastric pain
- (C) Proteinuria of 300 mg/24Hr
- (D) IUGR

158. All of these local anaesthetics can be used for topical analgesia except:

- (A) Chlorprocaine
- (B) Prilocaine
- (C) Lidocaine
- (D) Mepivacaine

159. As per the new ASRA guidelines, patient can be given thrombolytics after how many days of spinal tap?

- (A) 2 days
- (B) 5 days
- (C) 10 days
- (D) 1 month

160. All of the following are true about paediatric regional anesthesia except:

- (A) Infants require higher requirement of local anaesthetics per kg body weight as compared to older children for spinal anaesthesia

(B) They do not manifest autonomic blockade after SAB till 10 years of age

(C) They require higher dose of LA in Brachial plexus block as compared to older children

(D) The duration of motor blockade is less after spinal anaesthesia as compared to adults

161. Which of the statements is true regarding chronic renal failure?

(A) The duration of propofol is prolonged after continuous infusion

(B) Duration of action of vecuronium is not prolonged

(C) Pethidine can be safely used as an analgesic

(D) Local anaesthetic requirement decreases in comparison to healthy adults

162. How long nitrous oxide is to be avoided in a patient after instillation of intravitreal gas injection ( $\text{SF}_6$  or  $\text{C}_3\text{F}_8$ ) into the eye?

(A) 1-2 weeks

(B) 3-4 weeks

(C) 2 months

(D) 1 year

163. All of the following are indications for the use of fresh frozen plasma except:
- (A) Rapid reversal of warfarin toxicity
  - (B) Known coagulation factor deficiencies
  - (C) Massive blood transfusion
  - (D) To increase albumin levels in critically ill patients
164. Most sensitive modality to detect the depth of neuromuscular blockade is :
- (A) Train of four counts
  - (B) Double burst stimulation
  - (C) Post tetanic count
  - (D) Single twitch response
165. Vasopressor of first choice as per 'Surviving Sepsis Campaign 2008' is :
- (A) Vasopressin
  - (B) Noradrenaline
  - (C) Phenylephrine
  - (D) Adrenaline
166. Which of the following is not true about Bispectral Index(BIS) ?
- (A) The target range of BIS index is between 40 and 60
  - (B) Burst suppression is the major contributor to the calculation of BIS above a value of 40
  - (C) It has shown to decrease the incidence of intraoperative awareness
  - (D) It does not predict the depth of anaesthesia accurately while using ketamine or nitrous oxide
167. All of the following are true about magnesium and anaesthesia except :
- (A) Decreases the duration of neuromuscular blockade
  - (B) It is used in the seizure prophylaxis in severe preeclampsia
  - (C) The therapeutic range is between 5 to 9 mg/dl
  - (D) Increases post partum bleeding
168. Which of the following comes close to being the ideal irrigating solution for the use in laser prostatectomy ?
- (A) Cytal
  - (B) 1.5% Glycine
  - (C) 0.9% Normal saline
  - (D) 35% Sorbitol
169. The concentration dial of a TEC 6 vaporiser is calibrated in the range of:
- (A) 1-5%
  - (B) 1-8%
  - (C) 1-24%
  - (D) 1-18%

170. Length of Pulmonary artery catheter is :

- (A) 100 cms
- (B) 130 cms
- (C) 75 cms
- (D) 110 cms

171. Gold standard for the confirmation of the position of double lumen tube is :

- (A) Auscultation
- (B) Chest X-ray
- (C) Fibreoptic bronchoscopy
- (D) Capnography

172. Maximum pressure allowable during positive pressure ventilation while using LMA Proseal is :

- (A) 20 cm H<sub>2</sub>O
- (B) 30 cm H<sub>2</sub>O
- (C) 40 cm H<sub>2</sub>O
- (D) 60 cm H<sub>2</sub>O

173. The toxin from tetanus bacilli responsible for tetanus is :

- (A) Tetanolysin
- (B) Strychnine
- (C) Tetanoglobin
- (D) Tetanospasmin

174. All of the following can be used in the treatment of post dural puncture headache except :

- (A) Caffeine

(B) ACTH

(C) Clonidine

(D) Blood patch

175. Concerning the use of hydroxyethyl starch, which of the following statements is false ?

- (A) Glomerular filtration is the major route of elimination
- (B) large volumes may alter coagulation by lowering factor X concentrations
- (C) The incidence of allergic reactions is similar to that of gelatins
- (D) Serum amylase concentrations may be elevated upto threefold following its use

176. In carbon monoxide poisoning, which one of the following features is uncommon ?

- (A) Angina
- (B) Cyanosis
- (C) Nausea and vomiting
- (D) A normal oxygen saturation on pulse oximetry

177. During intermittent positive pressure ventilation, which one of the following statements is true ?
- (A) Mean intrathoracic pressure will be lower than during spontaneous breathing
  - (B) Right ventricular filling rises secondary to raised pulmonary vascular resistance
  - (C) PEEP will reinflate collapsed alveoli
  - (D) Left ventricular workload may decrease
178. Which one of the following does not cause error in the measurement of oxygen saturation by pulse oximetry ?
- (A) Haemoglobin S
  - (B) Methylene Blue
  - (C) Severe Anaemia
  - (D) Acute severe hypoxia
179. True about Xenon is all except :
- (A) Xenon is more potent than Nitrous oxide
  - (B) Xenon is more viscous than  $N_2O$
  - (C) Xenon has blood gas solubility coefficient less than one-third of  $N_2O$
  - (D) Xenon is lighter than air
180. Inhalational agent that can be absorbed by rubber/plastic tubing is :
- (A) Desflurane
  - (B) Isoflurane
  - (C) Halothane
  - (D) Sevoflurane
181. Factors causing increase in MAC are all except :
- (A) Hyponatremia
  - (B) Chronic alcohol abuse
  - (C) Hypothermia
  - (D) Hypercalcemia
182. False about Celiac Plexus Block :
- (A) Celiac plexus contains visceral afferent and efferent fibers from T5 to T12
  - (B) Celiac plexus lies in close relation to L1 vertebra
  - (C) Pneumothorax is one of the complications of celiac plexus block
  - (D) Vena cava lies posterior to the right celiac ganglion
183. False about initial resuscitation bundle (to be completed within 3 hours) in adults is :
- (A) Blood for lactate to be drawn
  - (B) At least 20 ml/kg crystalloid fluid challenge
  - (C) 2 sets of blood culture (best done within 45 mins)
  - (D) Broad spectrum antimicrobials (best done within 1 hour)

184. Most common organism implicated in septic shock :
- (A) Gram +ve
  - (B) Gram -ve
  - (C) Mixed flora
  - (D) Candida
185. False about management of septic shock as per 2012 Survival Sepsis Guidelines :
- (A) Initial fluid resuscitation is with crystalloid minimum of 20 ml/kg in children
  - (B) Addition of albumin to be considered
  - (C) Second vasopressor of choice is Dopamine after noradrenaline
  - (D) Strong recommendation against strach
186. True statement in sepsis management:
- (A) Hb threshold of 7 gm% as target
  - (B) Erythropoietin is recommended to treat sepsis related anaemia
  - (C) FFP recommended to correct coagulopathy in presence or absence of bleeding
  - (D) Platelet transfusion if count is between 20,000 to 50,000 with high risk of bleed
187. According to Berlin's updated definition, mild ARDS is  $PaO_2/FiO_2 \leq$ :
- (A) 200
  - (B) 250
  - (C) 300
  - (D) 150
188. Minimum TV ventilation in ARDS is :
- (A) 6 ml/kg
  - (B) 4 ml/kg
  - (C) 5 ml/kg
  - (D) 3 ml/kg
189. Blood sugar target in sepsis according to Survival Sepsis Guidelines 2012 is :
- (A)  $\leq 180$  mg/dl
  - (B)  $\leq 150$  mg/dl
  - (C)  $\leq 200$  mg/dl
  - (D)  $\leq 110$  mg/dl
190. False about nutrition according to Survival Sepsis Guidelines 2012 :
- (A) Peroral/Enteral feed is recommended in 1<sup>st</sup> 48 hrs
  - (B) Trophic feeding is good strategy in 1<sup>st</sup> week
  - (C) During 1<sup>st</sup> 7 days use of IV glucose + enteral nutrition is recommended over TPN alone
  - (D) Use of immunomodulating supplementation (like arginine, glutamine) is recommended

191. True regarding depth of chest compression according to recent AHA recommendations is :
- (A) Atleast  $1\frac{1}{2}$  inches
  - (B) Atleast  $1\frac{1}{2}$ -2 inches
  - (C) Atleast 2 inches
  - (D) Atleast 2-2 $\frac{1}{2}$  inches
192. Chest compression to ventilation ratio during neonatal resuscitation, true is :
- (A) 3 : 1
  - (B) 15 : 2
  - (C) 30 : 2
  - (D) 6 : 1
193. Dose and route of epinephrine recommended in anaphylaxis treatment according to recent AHA guidelines is :
- (A) 0.1 – 0.3 mg (1:1000) IM
  - (B) 0.1 – 0.3 mg (1:1000) Sc
  - (C) 0.2 – 0.5 mg (1:1000) IM
  - (D) 0.2 – 0.5 mg (1:1000) Sc
194. Most reliable clinical test for postoperative neuromuscular recovery is :
- (A) Sustained head lift for 3 sec
  - (B) Sustained head lift for 5 sec
  - (C) Sustained hand grip for 3 sec
  - (D) Maximum inspiratory pressure upto 30 cm water
195. Heat loss in surgical patients is mostly due to :
- (A) Conduction
  - (B) Convection
  - (C) Evaporation
  - (D) Radiation
196. According to temperature and thermal management guidelines, temperature monitoring (core) is needed in patients under general anaesthesia longer than :
- (A) 20 mins
  - (B) 30 mins
  - (C) 45 mins
  - (D) 60 mins
197. False regarding critical illness polyneuropathy is :
- (A) Affects both sensory and motor nerves
  - (B) SIRS contributes to it
  - (C) IVIg seems to be promising in treatment
  - (D) Reported mortality rate is 20%

198. Anaphylaxis is most commonly reported with the use of :

- (A) Atracurium
- (B) Rocuronium
- (C) Succinyl choline
- (D) Pancuronium

199. True regarding sugammadex is all except :

- (A) It is a cyclodextrine compound
- (B) It's structure has hydrophobic cavity and hydrophilic exterior
- (C) Parosmia is one of its side effects

(D) Plasma clearance of sugammadex alone is 3 times higher than rocuronium alone

200. Hepatic artery buffer response mechanism is maintained by the synthesis and washout of :

- (A) Calcium
- (B) NO
- (C) Adenosine
- (D) Prostacycline

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