

JEMAS(PG) – 2023 FELLOWSHIP IN CRITICAL CARE TECHNOLOGY (FCCT)

1. Severe hypoxemia, as in acute respiratory failure, can cause all of the following EXCEPT:
 - (A) Trachycardia
 - (B) Nystagmus
 - (C) Lactic acidemia
 - (D) Mental clouding
2. Severe carbon dioxide retention can cause all of the following EXCEPT:
 - (A) Mental clouding
 - (B) Acidosis
 - (C) Reduced cerebral blood flow
 - (D) Papilledema
3. Features of ARDS typically include the following EXCEPT:
 - (A) Severe Hypoxemia
 - (B) Ventilation- perfusion inequality without a shunt.
 - (C) Reduced lung compliances.
 - (D) Reduced FRC
4. Features of infant respiratory distress syndrome typically include all of the following EXCEPT:
 - (A) Patchy heamorrhagic edema and atelectasis.
 - (B) Production of abnormal form of pulmonary surfactant.
 - (C) Severe hypoxemia
 - (D) Large shunt.
5. The laboratory reports arterial blood gas in a patient with severe lung disease as: PO₂ 60 mmHg, PCO₂ 110mmHg, and pH 7.20. all of the following are true EXCEPT :
 - (A) There is hypoxemia.
 - (B) There is CO₂ retention.
 - (C) There is respiratory acidosis.
 - (D) The patient is breathing air.
6. Following statements about pulmonary surfactant is true EXCEPT :
 - (A) It is glycoprotein molecule.
 - (B) Acts by lowering surface tension of alveolar lining fluid.
 - (C) Surface tension of alveolar lining fluid gets progressive higher during inspiration.
 - (D) Surfactant prevents alveolar collapse during expiration.
7. Following statements about leptospirosis are true EXCEPT:
 - (A) It is a zoonotic disease
 - (B) It can involve multiple organs including lungs.
 - (C) Can be diagnosed early by blood culture.
 - (D) May result in ARDS

8. In carbon monoxide poisoning following statements are true EXCEPT:
- (A) ABG will show evidence of type I respiratory failure.
 - (B) It is an example of anemic hypoxia.
 - (C) Symptoms include headache, vomiting and confusion.
 - (D) Oxygen dissociation curve is shifted to the left.
9. Partial pressure of Oxygen in room air at sea level is:
- (A) Approx. 760mm/Hg.
 - (B) Approx. 160mm/ Hg.
 - (C) Nearly 100 mm/Hg.
 - (D) Nearly 40mm/Hg.
10. A low PaO₂ may be seen in all EXCEPT:
- (A) Sedative overdose.
 - (B) Cirrhosis of liver.
 - (C) Pulmonary embolism.
 - (D) Methemoglobinemia.
11. Bed Side Index of Severity Score in acute pancreatitis includes all EXCEPT:
- (A) Impaired mental status.
 - (B) Peritonitis.
 - (C) BUN.
 - (D) Age.
12. Identify wrong statement about management of acute pancreatitis.
- (A) Currently gut resting is the key in initial management.
 - (B) Ringer Lactate is preferred IV fluid for resuscitation.
 - (C) Hypocalcemia is largely asymptomatic and requires no specific therapy.
 - (D) ARDS usually presents after 24 hours.
13. A 63 year old man present with a triad of angina, syncope and congestive heart failure. Which of the following valvular heart lesion can be suspected:
- (A) Mitral stenosis.
 - (B) Tricuspid regurgitation.
 - (C) Aortic stenosis.
 - (D) Aortic regurgitation.
14. Which of the following is not present in cardiac tamponade?
- (A) Pulsus paradoxus.
 - (B) Kussmaul's sign.
 - (C) Pulmonary edema.
 - (D) Hypertension.

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15. All of the following are used in the initial management of acute life threatening cardiogenic pulmonary edema, except:
- (A) Digoxin.
 - (B) Morphine.
 - (C) Furosemide.
 - (D) Positive Pressure Ventilation.
16. A person with mitral regurgitation and atrial fibrillation presents with syncope. On examination the person has a heart rate of 55. What is the most probable cause?
- (A) Digitalis toxicity.
 - (B) Incomplete heart block.
 - (C) Stroke.
 - (D) Subarachnoid Haemorrhage.
17. Acronym AMBU stands for?
- (A) Automated manual breathing unit.
 - (B) Artificial manual breathing unit.
 - (C) Artificial mechanical breathing unit.
 - (D) Automated mechanical breathing unit.
18. ST elevation may be seen in all of the following conditions EXCEPT:
- (A) Myocardial infarction.
 - (B) Coronary artery spasm.
 - (C) Constrictive pericarditis.
 - (D) Ventricular aneurysm.
19. In MI, which enzyme is raised in 4 to 6 hrs and decreases in 3 to 4 days:
- (A) SGOT
 - (B) LDH
 - (C) CPK
 - (D) SGPT
20. Enlarged pulsatile liver with ascites is typically seen in:
- (A) Tricuspid Regurgitation.
 - (B) Mitral Regurgitation.
 - (C) Mitral stenosis.
 - (D) Pulmonary stenosis.
21. In stable angina:
- (A) CK-MB is elevated.
 - (B) Troponin I is elevated.
 - (C) Myoglobin is elevated.
 - (D) The levels of cardiac markers remain unchanged.

22. All of the following are cyanotic heart diseases, except:
- (A) TOF.
 - (B) PDA.
 - (C) Tricuspid Atresia.
 - (D) Eisenmenger's complex.
23. Whole blood is stored at:
- (A) 0 degree centigrade.
 - (B) 4 degree centigrade.
 - (C) 20 degree centigrade.
 - (D) 37 degree centigrade.
24. Dengue shock syndrome occurs due to:
- (A) Super-imposed bacterial infection.
 - (B) Capillary leak.
 - (C) Addison's crisis.
 - (D) Myocarditis.
25. Clinical criteria of brain death is all except:
- (A) Coma.
 - (B) Absent brain stem reflex.
 - (C) Absent spinal cord reflex.
 - (D) Absent motor activity.
26. Which of the following is not a cardiovascular monitoring technique:
- (A) Transesophageal echocardiography.
 - (B) Central venous pressure monitoring.
 - (C) Pulmonary artery catheterization.
 - (D) Capnography.
27. Which of the following statement is false for pulmonary embolism:
- (A) Fat embolism can cause seizures.
 - (B) Amniotic fluid embolism is a rare but catastrophic complication during labour.
 - (C) Sickle cell anemia can cause fat embolism.
 - (D) Presents with type II respiratory failure.
28. Hyponatremia may be found in all, EXCEPT:
- (A) Addison's disease.
 - (B) Congenital adrenal hyperplasia.
 - (C) Lithium toxicity when used in bipolar disorder.
 - (D) Lung cancer.

29. Which statement is false regarding Hepatorenal syndrome (HRS)?
- (A) Is defined as a serum creatinine $>133\mu\text{mol/L}$ (1.5mg/dL) in a patient with advanced liver disease in the absence of an identifiable cause of renal failure.
 - (B) Portal hypertension is the initiating factor.
 - (C) Renal replacement therapy may improve short-term survival.
 - (D) Liver transplantation offers little benefit.
30. Which statement is true regarding Electrocardiography?
- (A) The PR interval is usually ≤ 0.2 seconds.
 - (B) A normal QTc is >0.44 seconds.
 - (C) The QT interval is measured from the start of the Q-wave to the start of the T-wave.
 - (D) A normal QRS duration is 0.2 seconds.
31. Which statement is false in a case of Intestinal obstruction :
- (A) Large bowel obstruction typically presents with vomiting.
 - (B) Fluid and electrolyte replacement with nasogastric tube decompression may be effective at treating adhesional obstruction.
 - (C) A history of appendectomy may be associated with severe and extensive adhesions.
 - (D) Neostigmine may be beneficial in pseudo-obstruction.
32. In Gastroparesis all are true except :
- (A) Is characterised by delayed gastric emptying in the presence of mechanical obstruction.
 - (B) Vomiting may cause hyponatraemia.
 - (C) Secondary gastroparesis may present in Type I diabetes mellitus.
 - (D) Management is often ineffective.
33. Which one is true Critical care and haematological malignancies?
- (A) Patients with neutropenic sepsis have similar rates of acute respiratory distress syndrome (ARDS) to other critically ill patients.
 - (B) A temperature greater than 38°C is necessary for the diagnosis of neutropenic sepsis.
 - (C) Catheter-related bacteraemia always necessitates removal of the indwelling intravenous catheter.
 - (D) Steroids are an appropriate initial therapy for graft versus host disease (GVHD).
34. Which one is false about Anti-neutrophil cytoplasmic antibody (ANCA)?
- (A) If ANCA is positive, two target antigens should be checked (myeloperoxidase [MPO] and serine proteinase-3 [PR3]).
 - (B) A positive perinuclear-ANCA (p-ANCA) may be seen in cystic fibrosis.
 - (C) Microscopic polyarteritis is not associated with positive cytoplasmic- ANCA (c-ANCA).
 - (D) Minocycline use may cause positive ANCA vasculitis.
35. Diagnostic criteria for sepsis, severe sepsis and septic shock which one is false?
- (A) Decreased plasma procalcitonin levels.
 - (B) Normal white cell count with $>10\%$ immature forms.
 - (C) Elevated mixed venous oxygen saturations ($>70\%$).
 - (D) Severe sepsis is sepsis plus organ dysfunction.

36. Clinical features of pulmonary embolism may typically include all of the following EXCEPT:
- (A) Hemoptysis.
 - (B) Rigor
 - (C) Pleuritic pain.
 - (D) Dyspnea.
37. Factors that increases the likelihood of formation of peripheral venous thrombi include all of the following EXCEPT:
- (A) Polycythemia.
 - (B) Use of oral contraceptives.
 - (C) Medication with aspirin.
 - (D) Immobilization of a limb.
38. Some newborn infants lack pulmonary surfactant. The consequences includes all of the following EXCEPT:
- (A) Edema fluid in the alveoli.
 - (B) Areas of atelectasis.
 - (C) The lungs are difficult to inflate.
 - (D) Atrophy of the respiratory muscles.
39. Regarding cerebrospinal fluid all are true EXCEPT:
- (A) Formation is largely independent of intracranial pressure.
 - (B) Circulates from lateral ventricle to the third ventricle via the aqueduct of Sylvius.
 - (C) Has a higher level of chloride and lower level of potassium than plasma.
 - (D) Will display a low glucose relative to plasma value in bacterial meningitis.
40. In relation to sodium which statement is true:-
- (A) Sodium is the principal cation of the intracellular fluid.
 - (B) Criteria for diagnosis of the SIADH include finding a urinary sodium less than 20mmol/L.
 - (C) One liter of 3% sodium chloride contains approximately 500mmol of sodium.
 - (D) Hypernatraemia is not associated with hyperosmolality.
41. Indication for hyperbaric oxygen therapy include the following:-
- (A) Carbon monoxide poisoning.
 - (B) Decompression sickness.
 - (C) Clostridial myositis.
 - (D) All of the above.
42. Respiratory failure in a patient with rheumatoid arthritis may be caused by :
- (A) Bronchiolitis obliterans with organizing pneumonia.
 - (B) Methotrexate.
 - (C) Cricoarytenoid dysfunction.
 - (D) All of the above.

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43. Which statement is true about maximal oxygen uptake (VO_2max):
- (A) Is the highest work rate that an individual can attain.
 - (B) Is the highest O_2 uptake attained when the work rate is incrementally increased.
 - (C) Is the O_2 uptake when the blood lactate suddenly rises during a test when the work rate is incrementally increased.
 - (D) Is the O_2 uptake when the total ventilation reaches a ceiling that cannot be exceeded.
44. Which of the following statements is true about O_2 carriage.
- (A) A 1gm of hemoglobin carries 1.34ml of O_2 when fully saturated.
 - (B) 100ml of blood carries 3ml of O_2 in solution.
 - (C) A 1gm of hemoglobin carries 6 ml of O_2 when fully saturated.
 - (D) 100 ml of blood carries 10ml of O_2 in solution.
45. A raised hemoglobin value may be seen in all of the following EXCEPT:
- (A) Renal cell carcinoma.
 - (B) Polycystic kidney.
 - (C) Patient having COPD.
 - (D) Meningioma.
46. Obstructive sleep apnea may present with the following symptoms EXCEPT:
- (A) Tiredness.
 - (B) Insomnia.
 - (C) Restlessness.
 - (D) Early morning headache.
47. Clinical features of pulmonary edema typically include all of the following EXCEPT:
- (A) Dyspnea.
 - (B) Pleuritic pain.
 - (C) Cough.
 - (D) Radiographic changes.
48. The following statements are true about high altitude pulmonary edema EXCEPT:
- (A) Pulmonary wedge pressure is normal.
 - (B) Pulmonary artery pressure is high.
 - (C) Hypoxic pulmonary vasoconstriction may be uneven.
 - (D) The best immediate treatment is to give diuretic.
49. The normal barometric pressure in the passenger cabin of an aircraft is maintained at:-
- (A) Sea level barometric pressure.
 - (B) Pressure at 40,000 ft.
 - (C) Pressure at 8,000 ft.
 - (D) Pressure at 10,000 ft.

50. The following statements are true about arterial blood gas EXCEPT:
- (A) PaCO₂ rises in hypoventilation.
 - (B) PaO₂ may rise in hyperventilation.
 - (C) Hyperventilation causes alkalosis.
 - (D) Hypoventilation causes acidosis.
51. Differential diagnoses for delayed waking post-general anaesthesia include all EXCEPT:
- (A) Hypoglycaemia.
 - (B) Residual neuromuscular blockade.
 - (C) Central cholinergic syndrome.
 - (D) Anemia.
52. In severe necrotising pancreatitis which of the following is true:
- (A) In the first 7-10 days pancreatic necrosis develops a surrounding fibrous wall.
 - (B) Infected necrosis requires urgent debridement in stable patients.
 - (C) Sterile necrosis is associated with less severe systemic involvement than infected necrosis.
 - (D) Endoscopic debridement of necrotic tissue is preferred to open surgical management.
53. The common pathological changes following brainstem death is:
- (A) Severe hypertension.
 - (B) Hyponatraemia.
 - (C) Pulmonary oedema.
 - (D) Thromboembolic events.
54. When inserting a chest drain which of the following statement is false:
- (A) The anatomical triangle considered 'safe' is bordered by the latissimus dorsi, pectoralis major and a line superior to the horizontal level of the nipple.
 - (B) A small-bore chest tube, inserted with a Seldinger technique, is inappropriate for the management of a pneumothorax.
 - (C) The administration of prophylactic antibiotics should be considered in trauma patients undergoing chest drain insertion.
 - (D) If suction is required, following chest drain insertion, this may be performed via an underwater seal at a level of 10-20cmH₂O.
55. The following statements are true for drugs in pregnancy EXCEPT:
- (A) Ketamine should be avoided in early pregnancy.
 - (B) Suxamethonium readily crosses the placenta.
 - (C) Suxamethonium may have a prolonged action in pregnancy.
 - (D) The risk of antiepileptic drugs affecting the fetus are greatest in the first trimester.
56. Which of the below statement is true in abnormalities of coagulation?
- (A) A prolonged prothrombin time (PT) is seen in haemophilia.
 - (B) In von Willebrand's disease (VWD) the platelet count is unaffected.
 - (C) Aspirin prolongs PT and activated partial thromboplastin time (APTT).
 - (D) Uraemia prolongs the APTT.

57. Non-invasive ventilation (Continuous Positive Airway Pressure [CPAP] / Bilevel Positive Airway Pressure [BiPAP]) is contraindicated in:
- (A) Mechanical bowel obstruction.
 - (B) Recent upper GI surgery.
 - (C) Cardiogenic pulmonary oedema.
 - (D) Chest wall trauma.
58. Which of the statement is true for Pheochromocytoma:
- (A) Is classically associated with multiple endocrine neoplasia (MEN) Type 1.
 - (B) 24-hour urinary collection for catecholamines and metanephrines has a high sensitivity but a low specificity for diagnosis.
 - (C) Hyperglycaemia, hypercalcaemia and erythrocytosis are laboratory features.
 - (D) In relation to pre-operative preparation for surgical resection of pheochromocytoma, β -blockade should be instigated prior to α -blockade.
59. For antimicrobial resistance (AMR) Which of the following statement is false:
- (A) AMR is resistance to an antimicrobial where the organism in question was initially sensitive.
 - (B) Resistant organisms can include fungi, viruses and parasites in addition to bacteria.
 - (C) Misprescribing of antimicrobials can accelerate this natural phenomenon.
 - (D) Extended-spectrum β -lactamases (ESBLs) are responsible for a minority of resistant Gram-negative bacteria.
60. In the management of acute ST-elevation myocardial infarction (STEMI) which of the following statement is false:
- (A) Ticagrelor and aspirin should be given once the diagnosis is made.
 - (B) Primary percutaneous coronary intervention (PCI) is recommended within 90 minutes of first medical contact, if the patient initially arrives at a non-PCI-capable hospital.
 - (C) An injectable anticoagulant should be used (e.g. bivalirudin).
 - (D) Fibrinolytic therapy is recommended within 12 hours of symptom onset if primary PCI cannot be performed.
61. Which of the following are recognized causes of hypocalcaemia EXCEPT:
- (A) Hypermagnesaemia.
 - (B) Acute Hypophosphataemia.
 - (C) Vitamin D deficiency.
 - (D) Tumour lysis syndrome.
62. Regarding severe acute adult meningitis which of the following is false:
- (A) Bacterial seeding of the meninges commonly occurs via haematogenous spread.
 - (B) Fever, headache and neck stiffness form the classic triad of presenting symptoms.
 - (C) Adjuvant dexamethasone therapy reduces mortality and hearing loss, and improves neurological sequelae in acute bacterial meningitis.
 - (D) The use of corticosteroids may predispose to delayed cerebral thrombosis.

63. Regarding *Plasmodium falciparum* malaria which of the statement is true:
- (A) Most deaths due to malaria are caused by *P. falciparum*.
 - (B) The initial development of the parasite after transmission occurs in the spleen.
 - (C) The incubation period is typically <7 days.
 - (D) Monotherapy is recommended by the World Health Organization (WHO) for treatment.
64. In Pathophysiology of sepsis which of the statement is false:
- (A) The pathophysiology of bacterial sepsis initiated by Gram-positive organisms involves lipopolysaccharides.
 - (B) Interleukin 1, 2 and 6 have pro-inflammatory properties.
 - (C) Cytokines increase the expression of enzyme-inducible nitric oxide synthase in endothelial cells.
 - (D) Tumour necrosis factor causes cardiovascular insufficiency through a direct myocardial depressant effect.
65. Which of the statement is false in Haematological malignancies and critical care:
- (A) Granulocyte Colony-Stimulating Factor (GCSF) may be used to promote lymphocyte recovery following bone marrow transplant (BMT).
 - (B) The incidence of graft versus host disease (GVHD) increases with increasing age of donor and recipient.
 - (C) Acute GVHD is graded from I to IV.
 - (D) Respiratory failure is the commonest cause of death in patients undergoing bone marrow transplant.
66. Which of the following is false regarding *Clostridium difficile*:
- (A) Risk factors include age >60 years and previous use of broad spectrum antibiotics.
 - (B) Diagnosis is confirmed by stool culture.
 - (C) There is evidence for the use of probiotics to prevent *Clostridium difficile*-associated diarrhoea.
 - (D) Is a Gram-positive, spore-forming, anaerobic, toxin-producing bacteria.
67. In relation to extracorporeal membrane oxygenation (ECMO) which of the following is false:
- (A) Veno-venous ECMO (VV ECMO) is preferred to VA ECMO in the treatment of respiratory failure as normal pulmonary blood flow is maintained.
 - (B) An ECMO circuit consists of a drainage cannula, pump, oxygenator, and an arterial-return cannula.
 - (C) Haematology support is vital for the running of an ECMO service.
 - (D) The well-publicized CESAR trial showed no benefit of ECMO in adults.
68. Which of the statement is false regarding management of poisoning:
- (A) Selective serotonin reuptake inhibitor (SSRI) overdose — benzodiazepines.
 - (B) Iron overdose — multiple-dose activated charcoal.
 - (C) Lithium overdose — haemodialysis.
 - (D) Organophosphate overdose — atropine.

69. The following may cause a raised mean corpuscular volume (MCV) without anaemia EXCEPT:
- (A) Chronic alcohol excess.
 - (B) Methotrexate therapy.
 - (C) Phenytoin therapy.
 - (D) Hyperthyroidism.
70. Regarding Human albumin solution (HAS) which of the following is true:
- (A) Is derived from plasma from one donor.
 - (B) 4.5% HAS is hyperoncotic.
 - (C) Improved outcomes in critical care have been found with the use of HAS compared to saline.
 - (D) May have an outcome benefit when used post-ascitic drainage.
71. Which of the following is true in relation to an empyema:
- (A) An empyema tends to form 7 to 14 days after the onset of pneumonia.
 - (B) An empyema with a pH of less than 7.4 requires urgent drainage.
 - (C) Organized and loculated collections are best treated with intercostal drainage and antibiotics.
 - (D) An empyema will often have a reduced lactate dehydrogenase (LDH) level (<1000IU/L) on fluid analysis.
72. Which of the following is false regarding Macrophage Activation Syndrome (MAS):
- (A) Pancytopenia, liver failure, coagulopathy and multi-organ failure may be seen.
 - (B) High serum ferritin levels are often seen.
 - (C) MAS often causes a cytokine storm.
 - (D) High-dose steroid therapy is contraindicated.
73. Which of the following is true in liver function test abnormalities?
- (A) Albumin is a useful marker of synthetic liver function in the critically ill.
 - (B) Aspartate aminotransferase (AST) is more specific for liver injury than alanine aminotransferase (ALT).
 - (C) AST is the primary enzyme raised in cholestatic liver disease.
 - (D) The normal range for serum ammonia is 15-45µg/dl.
74. Regarding the cranial nerves (CN) all the statements are false EXCEPT:
- (A) The trochlear nerve provides motor supply to the superior rectus muscle.
 - (B) Sensory nerve supply to the face, nose and mouth is supplied by the trigeminal nerve.
 - (C) Pathology associated with the internal carotid artery may present with a third cranial nerve (III) palsy.
 - (D) Sensation to the anterior one third of the tongue is supplied by the glossopharyngeal nerve.

75. Renal Replacement Therapy (RRT) may be used in the overdose management of all EXCEPT:
- (A) Aspirin.
 - (B) Lithium.
 - (C) Diltiazem.
 - (D) Metformin.
76. Which statement is true regarding Acute Ischaemic Stroke (AIS):
- (A) Aspirin and clopidogrel in combination following minor AIS or transient ischaemic attack is not superior to aspirin treatment alone.
 - (B) Statin therapy should be started immediately following AIS.
 - (C) Patients presenting within 4.5 hours of onset of AIS should be considered for thrombolysis with intravenous tissue-type plasminogen activator (tPA).
 - (D) Tight glycaemic control (glucose of 4-8mmol/L) is recommended post-AIS.
77. Regarding hepatic encephalopathy all are true EXCEPT:
- (A) The West Haven system divides hepatic encephalopathy into five grades.
 - (B) Only complicates acute liver failure.
 - (C) Hyperammonaemia plays a critical role in pathogenesis.
 - (D) Lactulose 30-60ml orally or via a nasogastric tube is recommended.
78. In a pneumothorax all are true EXCEPT:
- (A) Is more common in males than in females.
 - (B) When under tension will cause tracheal deviation towards the affected side.
 - (C) May occur as a complication of tracheostomy insertion.
 - (D) Is more common in smokers than non-smokers.
79. In relation to tracheostomy which statement is true?
- (A) Haemorrhage from the innominate vessels is an early complication of insertion.
 - (B) It is recommended that the first routine tracheostomy change be performed at day 3 after percutaneous tracheostomy.
 - (C) Early tracheostomy improves long-term outcomes and reduces length of ICU stay.
 - (D) Percutaneous tracheostomies are more cost-effective and result in fewer complications, when compared to the surgical tracheostomies route in ICU patients.
80. Causes of DIC include:
- (A) Leukemia.
 - (B) Massive transfusion.
 - (C) Abruptio placentae.
 - (D) All of the above.
81. The most sensitive test for DIC is?
- (A) Serum fibrinogen levels.
 - (B) Serum levels of fibrin degradation products.
 - (C) Prolonged PT and PTT.
 - (D) Thrombocytopenia.

82. Which of the following is not true regarding platelet transfusion:
- (A) Useful in ITP.
 - (B) Used in DIC.
 - (C) Effective for 9-10 days.
 - (D) Effect decreases with repeated usage.
83. Causes of Deep venous thrombosis include all of the following, EXCEPT:
- (A) Diabetes Mellitus.
 - (B) Oral contraceptives.
 - (C) Paroxysmal Nocturnal Hemoglobinuria (PNH).
 - (D) Prolonged surgery.
84. Which one of the following is not a component of airway maintenance:
- (A) Head tilt.
 - (B) Jaw thrust.
 - (C) Chin lift.
 - (D) Tongue pull.
85. Which of the following investigations should be done immediately to best confirm a non-matched blood transfusion reaction?
- (A) Indirect Coomb's test.
 - (B) Direct Coomb's test.
 - (C) Antibody in patient's serum.
 - (D) Antibody in donor serum.
86. Urgent management in a case of open pneumothorax is :
- (A) Urgent thoracotomy
 - (B) Immediate insertion of a chest drain
 - (C) Stuffing the wound with sterile gauze
 - (D) Administration of intravenous Normal Saline
87. Most common type of ECG rhythm at the time of cardiac arrest in adults is:
- (A) Ventricular tachycardia without pulse
 - (B) Ventricular fibrillation
 - (C) Asystole
 - (D) Pulseless electrical activity
88. C.V.P (Central Venous Pressure) and pulmonary wedge pressure give an accurate assessment of all the following EXCEPT:
- (A) Tissue perfusion.
 - (B) Volume depletion.
 - (C) Volume overload.
 - (D) Myocardial function.

89. During cardiopulmonary resuscitation, external cardiac compression is given over:
- (A) Upper third of sternum
 - (B) Mid third of sternum
 - (C) Lower third of sternum
 - (D) Precordium overall
90. First step in CPR (Cardio Pulmonary Resuscitation) should be:
- (A) IV adrenaline.
 - (B) Intracardiac atropine.
 - (C) Airway maintenance.
 - (D) None of the above.
91. Post-spinal headache is due to
- (A) Injury to spinal cord.
 - (B) CSF leak from dura.
 - (C) Meningitis.
 - (D) Raised intracranial pressure.
92. All of the following are seen in cardiac tamponade EXCEPT:
- (A) Electrical alternans.
 - (B) Pulsus paradoxus.
 - (C) Increased JVP.
 - (D) Bradycardia.
93. Early complications of tracheostomy are:
- (A) Hemorrhage
 - (B) Displacement of tube or obstruction
 - (C) Surgical emphysema
 - (D) Tracheal stenosis
94. Most common complication of central venous catheter is:
- (A) Local bleeding
 - (B) Thrombosis
 - (C) Catheter related infection
 - (D) Pneumothorax
95. Low QRS voltage on ECG indicates:
- (A) Pulmonary embolism
 - (B) Pericardial effusion
 - (C) Cor pulmonale
 - (D) Infective endocarditis
96. Why is a patient kept fasting before surgery?
- (A) To maintain a clear G.I.T in abdominal surgeries
 - (B) To reduce the risk of aspiration
 - (C) To decrease pressure on abdominal aorta
 - (D) To prevent hyperglycemia

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97. In the treatment of severe bradycardia, all of the following can be the best modality of treatment EXCEPT:
- (A) Atropine.
 - (B) Pacing.
 - (C) Isoproterenol.
 - (D) Diltiazem.
98. 100% oxygen improves cyanosis in all EXCEPT:
- (A) Tetralogy of Fallot.
 - (B) Bronchial asthma.
 - (C) Eosinophilic pneumonia.
 - (D) Interstitial lung disease.
99. Infective endocarditis is least likely to occur in:
- (A) Atrial septal defect.
 - (B) Small ventricular septal defect.
 - (C) Mitral valve prolapse.
 - (D) Tetralogy of Fallot.
100. Which of the following ECG findings is associated with acute myocardial Infarction:
- (A) Elevation of S wave.
 - (B) Prolonged QT interval.
 - (C) ST segment elevation.
 - (D) Prolonged PR interval.