

MCQS IN ANESTHESIA

BASED ON INTERNATIONAL EXAMS

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1. The most common cause of hepatitis acquired from blood products is:
 - A. Hepatitis –A virus
 - B. Hepatitis-B virus
 - C. Adenovirus
 - D. Hepatitis-C virus
 - E. None of the above
2. Concerning the emergency administration of uncross matched blood:
 - A. Type-specific blood is preferable to O Rh-negative(universal donor) blood
 - B. O Rh-negative blood is preferable to type-specific, particularly cross matched blood
 - C. Hemolytic reactions following administration of O Rh-negative blood are often fatal
 - D. The chance of having antibodies to type-specific blood is similar both patients who have been previously exposed to foreign red cells and for those who have not
 - E. All of the above
3. Concerning neonates during surgical procedures:
 - A. Hypothermia (less than 35°C) is associated with apnea
 - B. Elective surgery can be carried out in the first 45 weeks post-conceptual age
 - C. Transcutaneous oxygen electrodes accurately reflect PaO₂
 - D. All of the above
 - E. None of the above
4. Metoclopramide
 - A. Accelerates gastric emptying
 - B. Decreases pre anesthetic gastric volume
 - C. Increases lower esophageal sphincter tone
 - D. Neutralizes acid pH of gastric contents
 - E. None of the above
5. The bronchoconstriction produced by the parasympathetic irritant reflex may be blocked by each of the following EXCEPT:
 - A. Local anesthetics
 - B. Inhalational anesthetics
 - C. Ketamine
 - D. Thiopental
 - E. Atropine

(1).D (2).A (3).E (4).A (5).D

6. In an otherwise healthy 20-year old man after an automobile accident, arterial blood gases on room air are PaO_2 : 100 mmHg, PaCO_2 : 40 mmHg, and pH: 7.41. Hemoglobin level is 10 gm/dl. Oxygen content can be increased to normal levels (20 to 21 ml/dl) by increasing:
- A. Hemoglobin to 12 gm/dl.
 - B. Hemoglobin to 15gm/dl**
 - C. FiO_2 to 1.0
 - D. FiO_2 to 0.5
 - E. FiO_2 to 1.0 at 2 atmospheres
7. Assuming an initial PaCO_2 of 40 mmHg, the PaCO_2 expected after 5 minutes of apnea in an anesthetized patient at 37°C is approximately:
- A. 45 to 50 mmHg
 - B. 55 to 60 mmHg**
 - C. 65 to 70 mmHg
 - D. 75 to 80 mmHg
 - E. 85 to 90 mmHg
8. A 55-year old man has to undergo transurethral resection of the prostate for benign prostatic hypertrophy. On admission he is cyanotic and plethoric; hematocrit is 51%, PaO_2 is 49 mmHg, PaCO_2 is 48 mmHg, and pH is 7.36. He has a history of heavy smoking, chronic cough, and purulent sputum production in the morning. The most likely diagnosis is:
- A. Pan lobular emphysema
 - B. Sarcoidosis
 - C. Goodpasture's syndrome
 - D. Acute alveolitis
 - E. Chronic bronchitis**
9. After bilateral carotid body resection, the ventilatory response to hypoxia is:
- A. Normal
 - B. Absent**
 - C. Increased
 - D. Affected by mixed venous PO_2
 - E. None of the above
10. The most common cause of vocal cord paralysis is:
- A. Inflammation
 - B. Central nervous system disease
 - C. Malignant neoplasia
 - D. Trauma**
 - E. None of the above
- (6).B (7).B (8).E (9).B (10).D

11. Pulmonary diffusion capacity is:
- A. Measured using carbon monoxide
 - B. Measured using oxygen
 - C. Decreased in the presence of interstitial pulmonary edema
 - D. A measure of gas transport from the alveoli to the pulmonary capillaries
 - E. All of the above
12. Regarding aspiration of gastric contents:
- A. Alkaline pH precludes severe pneumonitis
 - B. Prior placement of a nasogastric tube prevents aspiration
 - C. Use of a cuffed endotracheal tube prevent aspiration
 - D. Administration of corticosteroids minimizes the post aspiration syndrome
 - E. None of the above
13. The tip of an endotracheal tube moves closer to the carina when the:
- A. Neck is flexed
 - B. Patient is placed in the trendelenburg position
 - C. Patient is moved from the supine to the sitting position
 - D. All of the above
 - E. None of the above
14. Inner layer of spinal dura sac in adults ends at:
- A. T12
 - B. S2
 - C. L2
 - D. S4
 - E. L4
15. In a patient with acute idiopathic polyneuritis (Gullian-Barre Syndrome), which of the following measurements should be used as the earliest indicator of the need for endotracheal intubation:
- A. Tidal volume less than 6ml/kg
 - B. Vital capacity less than 12 to 15ml/kg
 - C. Inability to generate -20cm H₂O inspiratory pressure
 - D. Respiratory rate greater than 30/min
 - E. PaCO₂ greater than 50mmHg

(11).E (12).E (13).D (14).B (15).C

16. Compared with Fentanyl, Alfentanyl:
- A. is twice as potent
 - B. has one third the duration of action
 - C. is less protein bound
 - D. has a longer elimination half-life
 - E. all of the above
17. In a women who have just undergone delivery, advantages of giving 5mg of epidural morphine, compared with giving the same dosage intravenously, include:
- A. More profound analgesia
 - B. Better maternal-infant interaction
 - C. Shorter hospital stay
 - D. Less respiratory depression
 - E. All of the above
18. Of the following, the patient who is LEAST suitable for an out-patient surgical procedure is a:
- A. 76 year old patient
 - B. Patient who will require endotracheal intubation
 - C. Patient with leukemia
 - D. 4-month old infant who was born prematurely
 - E. Patient receiving immunosuppressant therapy
19. A patient with sickle cell anemia is scheduled for a cholecystectomy. Hemoglobin: 7.1gm/dl, Hemoglobin S: 73%, and hematocrit: 20%. Preoperative preparation should include:
- A. Transfusion to a hematocrit of 40%
 - B. Transfusion to a hemoglobin S level less than 50%
 - C. Intravenous administration of fluids while NPO
 - D. All of the above
 - E. None of the above
20. A patient with myxedema becomes hypotensive (blood pressure 80/50mmHg) during anesthesia for emergency laparotomy. Blood pressure does not increase with blood and crystalloid replacement. Which of the following is the most appropriate initial treatment:
- A. L-thyroxin
 - B. Hydrocortisone
 - C. Tri-iodothyronine
 - D. Ephedrine
 - E. Dopamine

(16).B (17).E (18).D (19).D (20).A

21. Perforation of the heart by an indwelling central venous catheter resulting in cardiac tamponade:
- A. Is associated with a mortality rate in excess of 50%
 - B. Occurs more often in the ventricular than atrial wall
 - C. Can be prevented by x-ray localization of the catheter tip in the superior vena cava during insertion
 - D. Is not related to the rate of fluid infusion
 - E. Occurs less frequently with rigid, beveled catheters
22. Propranolol administered to anesthetized patients during nitroprusside-induced hypotension produces:
- A. Increased cardiac output
 - B. Unchanged heart rate
 - C. Decreased plasma rennin concentration
 - D. Increased dose requirement for nitroprusside
 - E. None of the above
23. Which of the following reduces rennin secretion:
- A. Etomidate
 - B. Spironolactone
 - C. Clonidine
 - D. Captopril
 - E. All of the above
24. Furosemide increases excretion of:
- A. Na
 - B. K
 - C. Ca
 - D. All of the above
 - E. None of the above
25. Potential side effects of Furosemide treatment include:
- A. Ototoxicity
 - B. Hypokalemia
 - C. Metabolic alkalosis
 - D. Hypovolemia
 - E. All of the above

(21).A (22).C (23).C (24).D (25).E

26. Digitalis toxicity is often associated with:
- A. Tinnitus
 - B. Nausea
 - C. Pleural effusion
 - D. All of the above
 - E. None of the above
27. Which of the following drugs can be used to suppress ventricular tachycardia:
- A. Digoxin
 - B. Nitroprusside
 - C. Atropine
 - D. Lidocaine
 - E. All of the above
28. Arrhythmias secondary to hyperthyroidism are best controlled with:
- A. Verapamil
 - B. Propranolol
 - C. Digitalis
 - D. Bretylium
 - E. Tocainamide
29. The anticoagulant effect of heparin is based on:
- A. Alteration of thrombin levels
 - B. Potentiation of antithrombin III
 - C. Activation of plasma to plasminogen
 - D. Inactivation of ionized calcium
 - E. Reduction of available factor VII
30. A patient complains of backache following an epidural anesthetic. This is most likely the result of:
- A. Traumatic nerve injury from the needle
 - B. Neurotoxicity from the local anesthetic drug
 - C. Hematoma formation
 - D. Prolonged immobilization
 - E. Disruption of the ligaments from the epidural needle

(26).B (27).D (28).B (29).B (30).E

31. Apnea results in a more precipitous reduction in PaO_2 in pregnant patients than in non-pregnant patient because of:
- A. Increased closing volume
 - B. Decreased functional residual capacity
 - C. Decreased vital capacity
 - D. Decreased total lung capacity
 - E. Increased residual volume
32. Each of the following statement about blood pressure response to tracheal intubation under light anesthesia is true except:
- A. Blood pressure on hospital admission is helpful in predicting the extent of response
 - B. The response is greater in patient with controlled hypertension than in normotensive patients
 - C. Severe reactive hypertension occurs in approximately 25% of patients
 - D. Myocardial ischemia as evidenced by ST segment depression ensues in some patients with coronary occlusive disease
 - E. The response can be decreased by deepening the level of anesthesia prior to intubation
33. Compared with a 30-year old patient, a 75-year old patient is likely to have:
- A. More rapid induction of anesthesia following administration of thiopental
 - B. Decreased rate of metabolism of diazepam
 - C. shorter duration of action of pancuronium
 - D. Decreased apparent volume of distribution of Fentanyl
 - E. Greater plasma protein binding of meperidine (pethidine)
34. Each of the following is a pharmacological effect of histamine in man EXCEPT:
- A. Decreased peripheral resistance
 - B. Erythema
 - C. Bronchoconstriction
 - D. Increased serum catecholamine level
 - E. Negative chronotropism
35. Which of the following is the most sensitive detector of venous air embolism:
- A. Pulmonary artery pressure
 - B. Central venous pressure
 - C. Esophageal heart sounds
 - D. Precordial Doppler
 - E. End-tidal carbon dioxide monitor

(31).B (32).A (33).B (34).E (35).D

36. For a non-emergency operation what is the recommended preoperative minimum level of normally functioning platelets:
- A. More than 50,000
 - B. More than 75,000
 - C. More than 100,000
 - D. More than 150,000
 - E. None of the above
37. On average, by how much do you expect six random units of platelets to the platelet count in an adult:
- A. 25,000 mm³
 - B. 40,000 mm³
 - C. 60,000 mm³
 - D. None of the above
38. A child weighing 20 kg has hemoglobin of 6 g/dl and it is thought necessary to increase this to 10 gm/dl. What volume of packed red blood cells need to be transfused to achieve his:
- A. 160 ml
 - B. 260 ml
 - C. 320 ml
 - D. 480 ml
 - E. 600 ml
39. In mechanically ventilated patient with acute respiratory failure, positive end-expiratory pressure (PEEP) of 10 cmH₂O is accompanied by:
- A. Increased stroke volume
 - B. Decreased ejection fraction
 - C. Decreased wedge pressure
 - D. Increased left ventricular end-systolic volume
 - E. Unaltered ejection fraction
40. The incidence of peri operative reinfarction in patients having non-cardiac surgery is:
- A. 5% in patients operated within 3 months of infarction
 - B. 15% in patients operated within 3 months of infarction
 - C. 35% in patients operated within 3 months of infarction
 - D. 5% in patients operated within 3 to 6 months after infarction
 - E. 35% in patients operated within 3 to 6 months after infarction

(36).A (37).C (38).B (39).E (40).C

41. Vecuronium:

- A. is an analogue of pancuronium
- B. has minimal effects on cardiac output
- C. has minimal effects on systemic vascular resistance
- D. has minimal effects on pulmonary arterial pressure
- E. all of the above

42. True statement(s) concerning the aspiration of foreign bodies include(s):

- A. The majority lodge in the upper airway
- B. A chest roentgenogram obtained during inspiration will usually reveal the presence of an even radiolucent object
- C. Obtaining the chest roentgenogram during expiration while applying pressure to the epigastrium may make the diagnosis more obvious
- D. Obstructive emphysema is an unusual finding
- E. Atelectasis is the most common abnormal finding

43. Concerning patients with Parkinson's disease:

- A. They have abnormally high dopamine concentration in the basal ganglia
- B. Administration of dopamine will alleviate signs of the disease
- C. Administration of L-dopa should be continued at least 2 to 3 days preoperatively
- D. Patients who have elevated serum levels of L-dopa have a greater than normal incidence of dysrhythmias
- E. All of the above

44. The incidence of maternal aspiration of vomit during anesthesia for cesarean delivery can be reduced by each of the following EXCEPT:

- A. Oral administration of an antacid prior to induction
- B. Rapid endotracheal intubation
- C. Avoiding positive pressure ventilation prior to intubation
- D. Use of cricoid pressure during endotracheal intubation
- E. Extubating the patient only after she is fully awake

45. The Oxy-hemoglobin dissociation curve is shifted to the left by:

- A. Acidosis
- B. Hypothermia
- C. Anemia
- D. Cirrhosis
- E. High altitudes

(41).E (42).A (43).D (44).A (45).B

46. The ventilatory response to hypoxia is:
- A. Prominent below a PaO_2
 - B. Mediated by peripheral chemo receptors
 - C. decreased by analgesic doses of intravenous narcotics
 - D. diminished by low concentrations of halothane
 - E. all of the above
47. A drug that stimulates B_1 and B_2 adrenoceptors can be expected to cause:
- A. an increase in heart rate
 - B. a decrease in total peripheral resistance
 - C. a relaxation of airway smooth muscle
 - D. an increase in rennin release
 - E. all of the above
48. Which of the following may produce either direct or indirect parasympathomimetic effects:
- A. Bethanechol
 - B. Neostigmine
 - C. Nicotine
 - D. All to the above
 - E. None of the above
49. Osmotic diuretics are useful in treating:
- A. Hypercalcemia
 - B. Congestive heart failure
 - C. Pulmonary edema
 - D. Prophylaxis against Acute renal failure
 - E. All of the above
50. Dantrolene is the rational choice to treat malignant hyperthermia caused by succinylcholine because it:
- A. Blocks Ca^{2+} release from sarcoplasmic reticulum
 - B. Further relaxes skeletal muscle
 - C. Increase the rate of succinylcholine metabolism
 - D. Antagonizes succinylcholine binding to nicotinic receptors
 - E. Acts centrally to reduce fever

(46).E (47).E (48).D (49).D (50).A

51. Bronchomotor tone is decreased by each of the following EXCEPT?
- A. Increased PCO₂ in the airway
 - B. B₂-adrenergic agonists
 - C. Phosphodiesterase inhibitors
 - D. Aerosol therapy**
 - E. Anticholinergic drugs
52. Hazards of intravenous sodium bicarbonate therapy during cardiopulmonary resuscitation (CPR) include all of the following EXCEPT:
- A. Hypercarbia
 - B. Hyperosmolarity
 - C. Metabolic alkalosis
 - D. Hyperkalemia**
 - E. Cerebral dysfunction
53. Endotracheal suction:
- A. Should be limited to 30 seconds of suction
 - B. Should be preceded by increased ventilation with supplemental oxygen
 - C. Can result in hypoxia
 - D. Should be performed without applying suction while inserting the catheter
 - E. All of the above**
54. Signs occurring early in malignant hyperthermia in human include all of the following EXCEPT:
- A. Tachycardia
 - B. Cyanosis/mottling
 - C. Muscle rigidity
 - D. Dysrhythmias
 - E. Myoglobinemia and myoglobinuria**
55. During course of cardio version, a patient suddenly develops ventricular fibrillation. What is the first thing that should be done?
- A. Administer a synchronized shock
 - B. Administer an unsynchronized counter shock**
 - C. Begin external chest compression
 - D. Inject 75 mg Lidocaine IV

(51). A (52).D (53).E (54)E (55).B

56. In the adult the most likely distance between the upper and lower central incisors during maximal mouth opening is:
- A. 2 to 4 cm
 - B. 4 to 6 cm
 - C. 6 to 8 cm
 - D. 8 to 10 cm
57. Which of the following statements about the occurrence of cardiac arrest after the administration of a spinal anesthetic is MOST likely true:
- A. it is usually preceded by a period of hypoxia
 - B. it usually occurs approximately 30 minutes after the spinal injection
 - C. it is usually associated with a sensory level above T2
 - D. hypotension is frequently a prelude
58. When an axillary brachial plexus block is performed:
- A. 10 ml of 1% Lignocaine is adequate
 - B. The deltoid muscle may be penetrated
 - C. Cutaneous sensation is not abolished over the medial side of the arm
 - D. Pneumothorax is a complication
 - E. Hypotension is frequently a prelude
59. Significant morbidity with aspiration of gastric contents is related to:
- A. Acidity
 - B. Particulate matter
 - C. Bacterial content
 - D. All of the above
 - E. None of the above
60. In more than 90% of adults, the carina projects radio graphically over which of the following vertebral levels:
- A. T2 -T3
 - B. T3 - T5
 - C. T5 - T7
 - D. T7 - T8
 - E. None of the above

(56).B (57).C (58).C (59).D (60).C

61. In preparing the hyperthyroid patient for elective surgery, which of the following is most important:
- A. Beta adrenergic blockers
 - B. Antihypertensive therapy
 - C. Anti thyroid therapy
 - D. Tri-iodothyronine (T3) replacement therapy
 - E. Thyroxine (T4) replacement therapy
62. A 27 year old intravenous drug abuser develops bacterial endocarditis from staphylococcus aureus. The patient has a history of anaphylaxis to penicillin. The best initial antibiotic regimen is administration of:
- A. Cefamandole
 - B. Clindamycin
 - C. Methicillin and gentamycin
 - D. Metronidazole and amikacin
 - E. Vancomycin and gentamycin
63. A patient develops dyspnea, chest pain and minimal hemoptysis and a presumptive diagnosis of pulmonary embolism is made. The appropriate next diagnostic step is:
- A. Fibrin degradation product and D-dimer assays
 - B. Magnetic resonance imaging of the chest
 - C. Pulmonary angiography
 - D. Transcutaneous Doppler of the legs
 - E. Xenon lung scan
64. After 10 days of mechanical ventilation a patient develops fever. An elevated white blood cell count and left lobe consolidation. The next step in treating this patient is:
- A. Bronchoscopy, bronchoalveolar lavage for gram stain and culture, await results before starting antibiotics
 - B. Bronchoscopy, bronchoalveolar lavage for gram stain and culture, start an aminoglycoside
 - C. To obtain gram stain sputum and start an aminoglycoside and ceftazidime
 - D. To obtain sputum culture and begin therapy with an aminoglycoside and ceftazidime
 - E. To obtain transtracheal aspirate for gram stain and culture, start ceftazidime

(61).C (62).E (63).C (64).C

65. A 24 year woman has a two-month history of night sweats pruritus and chest discomfort. Chest x-ray and computed tomography scan show a huge anterior mediastinal mass. An anterior mediastinotomy is planned to obtain a tissue diagnosis. The safest plan for management of this patient's airway is:
- A. Awake intubation over a bronchoscope, then induction of general anesthesia
 - B. Induction with inhalational agents and spontaneous ventilation, then intubation.
 - C. Inhalation induction, no intubation, continued spontaneous ventilation
 - D. Rapid sequence induction and intubation after fast acting muscle relaxants
 - E. Standard induction and intubation with an armored endotracheal tube
66. A 64 year old man underwent Whipple's procedure for cancer pancreas. Postoperatively, her required high concentration of oxygen and mechanical ventilation for 12 days. Prolonged exposure to oxygen in this patient may lead to each of the following clinical conditions EXCEPT:
- A. Absorption Atelectasis
 - B. Acute tracheobronchitis
 - C. Adult respiratory distress syndrome
 - D. Bronchopulmonary dysplasia
 - E. Pneumatoceles
67. A 46-year old woman is recovering from emergency surgery following complications related to hemicolectomy procedure. Shortly after extubation, she is administered a blood transfusion for a hematocrit of 22%. She subsequently experiences chest tightness, fever, chills, and dyspnea. Her blood pressure falls and her urine is subsequently noted to be dark red in color. Which of the following is the most common cause of the transfusion reaction:
- A. Administration of blood without a filter
 - B. Bacterial contamination of donor blood
 - C. Clerical error
 - D. Mismatches involving the Rh system
 - E. Over heating of blood during storage
68. A term newborn infant underwent repair of congenital diaphragmatic hernia at eight hours of life. The initial twelve hours after operation were uneventful. However, one hour later the newborn suddenly developed respiratory distress, cyanosis, and poor capillary filling. Hyperventilation, bicarbonate and 100% O₂ administration alleviated the symptoms. Which of the following agents has the most potential for improving this infant's conditions?
- A. Isoproterenol
 - B. Nitric oxide
 - C. Nitroprusside
 - D. Prostaglandin
 - E. Toazoline

(65).A (66).E (67).C (68).B

69. In clinical presentation of septic shock, all true EXCEPT:
- A. Fever presents early in sepsis is caused by the release of TNF, Interleukin I
 - B. Normothermia or hypothermia may be present
 - C. Confusion could be an early sign of sepsis
 - D. Leukocytosis predicts high mortality than neutropenia
 - E. Hyperglycemia is common
70. Maternal side effects of terbutaline include all of the following EXCEPT
- A. Anxiety
 - B. Bradycardia
 - C. Headache
 - D. Trembling
 - E. Nausea
71. The pharmaceutical disadvantages of atracurium and Vecuronium occur because of:
- A. Instability in solution
 - B. Instability in light
 - C. Insolubility in water
 - D. Insolubility in body fluids
72. Dantrolene, which is true?
- A. Is highly lipid soluble
 - B. It has no direct acting skeletal muscle relaxant
 - C. Releases calcium ions from the sarcoplasmic reticulum
 - D. Dissociates excitation contraction coupling in skeletal muscle
 - E. In therapeutic doses, affects cardiac muscle and decreases cardiac output
73. Ketamine anesthesia or analgesia is acceptable in patients with each of the following conditions EXCEPTS:
- A. Cardiac tamponade
 - B. Asthma with acute bronchospasm
 - C. Intracerebral mass
 - D. Increased intraocular pressure
 - E. Anxiety prior to regional nerve block

(69).D (70).B (71).A (72).D (73).C

74. You have been successful in the initial attempt to defibrillate a 70-kg adult. The recommended energy for the second defibrillation is:
- A. 50 J
 - B. 100 J
 - C. 200 J
 - D. 200 to 300 J**
 - E. 400 J
75. Indication for neuromuscular blockade in the intensive care patient do not include:
- A. Facilitation of endotracheal intubation
 - B. Management of tetanus
 - C. Cerebral protection during status epilepticus
 - D. Prevention of coughing related increases in intracranial pressure**
76. A child weighing 20 kg has hemoglobin of 6 g/dl and it is thought necessary to increase this to 10 g/dl. What volume of packed red blood cells needs to be transfused to achieve this?
- A. 160ml
 - B. 260ml**
 - C. 360ml
 - D. 460ml
 - E. None of the above
77. Hypotension during spinal anesthesia can be caused by:
- A. Vasodilation of resistance and capacitance vessels**
 - B. Stimulation of the vagal nerve
 - C. Block of the lower lumbar and sacral roots
 - D. The plasma level of the local anesthetic drug
 - E. None of the above
78. Which of the following statements about aspiration is LEAST LIKELY TRUE?
- A. Aspiration can occur during sedation with 50% N₂O
 - B. The risk of aspiration is increased by the use of nasal continuous positive airway pressure
 - C. Aspiration can occur following endotracheal intubation**
 - D. Aspiration is uncommon during partial neuromuscular paralysis
79. Which of the following statements about complications after tracheal extubation is MOST LIKELY TRUE?
- A. The most common presentation of arytenoids dislocation is acute airway obstruction
 - B. The most common site of airway edema in children is subglottic**
 - C. Unilateral vocal cord paralysis presents most commonly with stridor
 - D. All of the above
- (74).D (75).C (76).B (77).A (78).D (79).B

80. Ventricular fibrillation occurs during cardiac catheterization in a patient who is awake. The patient simultaneously experiences the onset of a paroxysm of coughing. Which of the following hemodynamic results could be expected?
- A. Coughing would significantly impede venous return and cardiac output
 - B. The intrathoracic electrical potential resulting from the forceful cough might be sufficient to induce spontaneous defibrillation
 - C. Coughing could produce opening of the aortic valve but does not generate forward blood flow
 - D. Coughing would not produce a mean systolic aortic pressure greater than that achieved by conventional cardiopulmonary resuscitation (CPR)
81. Which of the following describes proper dosing by the endotracheal tube during CPR?
- A. Use 2 to 2.5 times the IV dose
 - B. Dilute in 1ml of saline
 - C. Dilute in 5% dextrose
 - D. Drip slowly into the endotracheal tube
82. Which of the following drugs are most likely to facilitate conversion from ventricular fibrillation to an effective rhythm?
- 1) Oxygen
 - 2) Adenosine
 - 3) Epinephrine
 - 4) Verapamil
- A. 1,2,4
 - B. 1,3
 - C. 1,4
 - D. 2,3
83. The site of action of epidural local analgesics is:
- A. Substantia gelatinosa of spinal cord
 - B. Spinal cord
 - C. Spinal nerve roots
 - D. Dorsal horn
84. Drugs potentiate muscle relaxants EXCEPT:
- A. Amoxicillin
 - B. Gentamycin
 - C. Kanamycin
 - D. Lidocaine
 - E. Neomycin

(80).D (81).A (82).B (83).C (84).A

85. Myotonia dystrophica and succinylcholine can cause:
- A. Make intubation and ventilation difficult
 - B. Prolong muscle relaxant action
 - C. Can cause cardiorespiratory arrest
86. Thiopental anesthesia can cause:
- A. Decrease intraocular pressure
 - B. Increase intraocular pressure
 - C. No change in intraocular pressure
87. Residual neuromuscular block may be indicated by:
- A. Head lift
 - B. Normal tidal volume
 - C. Decreased inspiratory force
 - D. Vital capacity more than 15ml/kg
88. Diazepam induction can cause:
- A. Ataxia
 - B. Tolerance
 - C. Physical dependence
 - D. Muscle spasm
89. Fentanyl may be potentiated by each of the following EXCEPT
- A. Thiopental
 - B. Diazepam
 - C. Morphine
 - D. Ketamine
 - E. Naloxone
90. Vomiting and regurgitation may be due to:
- A. Shock of any origin
 - B. Hypocalcemia
 - C. Hypoglycemia
 - D. Light sedation
91. Ondansetron can be used to prevent and treat nausea and vomiting in all of the following conditions EXCEPT:
- A. Motion sickness
 - B. Post operatively
 - C. Chemotherapy

(85).A (86).A (87).A (88).A (89).E (90).D (91).A

92. Non cardiac causes of elevated central venous pressure is:
- A. Positive pressure ventilation
 - B. High transducer
 - C. Sitting position
 - D. Nitroglycerine therapy
93. Dantrolene has the following action:
- A. Block excitation contraction coupling
 - B. Direct muscle relaxant action
 - C. Increase calcium concentration
94. Regarding sublingual medications:
- A. Decreased onset of action with highly lipid soluble drugs
 - B. Increased onset of action with water soluble drugs
95. Halothane metabolism may occur by:
- A. Reduction
 - B. Oxidation
 - C. Methylation
96. Ketamine is most effective in condition
- A. Ischemic heart disease
 - B. Cerebrovascular disease
 - C. Hypovolemic shock
97. Inhalational anesthesia which causes most arrhythmia:
- A. Halothane
 - B. Isoflurane
 - C. Desflurane
 - D. Sevoflurane
98. TURP can cause all of the followings EXCEPT:
- A. Ammonia intoxication
 - B. Hypernatremia
 - C. Hemolysis
 - D. Hypoosmolarity

(92).A (93).A (94).B (95).B (96).C (97).A (98).B

99. Laryngeal Mask Airways:
- A. can be used for positive pressure ventilation
 - B. may be used in difficult intubation cases
 - C. protect against aspiration
 - D. alleviate laryngospasm
 - E. need deep muscle relaxation
100. Superior laryngeal nerve block leads to
- A. Anesthesia for the entire palate
 - B. Anesthesia for the trachea
 - C. Anesthesia for the tongue
 - D. Anesthesia for the larynx
101. Postoperative sore throat :
- A. Hoarseness of voice as a symptom
 - B. Occurs in 5 – 10% of patients under general anesthesia
 - C. Mostly occur as a result of mask ventilation
 - D. May be due to laryngoscopic manipulation
102. A patient with ante partum hemorrhage scheduled for urgent cesarean section, the most appropriate action in case of failed intubation is:
- A. Awake the patient and choose other technique
 - B. Assess the ventilatory status then proceed with mask ventilation
 - C. Inform the surgeon to start operation immediately
 - D. Immediate tracheostomy
103. As regards to sickle cell disease:
- A. Sickling crisis may occur when PaO_2 decrease than 50mmHg
 - B. Sickling crisis may occur due to hyperthermia
 - C. Sickling trait patient often die within 30 – 40 years
 - D. Over hydration is preferable
104. Mivacurium
- A. Metabolism by plasma cholinesterase enzyme
 - B. Tachycardia can occur due to histamine release
 - C. Depend on elimination
 - D. Has prolonged duration of action

(99).B (100).D (101).D (102).B (103).A (104).A

105. As regard to water balance, all are true except
- A. Daily adult water intake is 2500 ml
 - B. Main insensible water loss is via skin and lungs
 - C. Sensible water losses occur mainly from kidneys and gastrointestinal tract
 - D. Total body water (TBW) is more in ECF than ICF in adults
106. In Bier's block:
- A. Systemic absorption may occur after sudden tourniquet deflation
 - B. Adrenaline can be administered
 - C. Tourniquet can be deflated within 15 minutes
107. Propofol:
- A. Can be used in outpatient anesthesia
 - B. Not given in renal failure patients
 - C. May cause tachycardia
 - D. It has no preservative
108. After 500ml blood loss, patients' volume should be replaced by:
- A. Blood transfusion (one unit)
 - B. Hetastarch infusion
 - C. Isotonic saline infusion
 - D. Albumin administration
109. The nurse inform the anesthetist that the patient in PACU is comatose, apneic, and pulseless, the most suitable action to be taken is:
- A. Call for help
 - B. Immediately start CPR
 - C. Auscultate the chest at first
 - D. Check ECG electrodes
110. Adult spinal cord ends at
- A. L2 and L1 interspace
 - B. L1 vertebra
 - C. L2 vertebra
 - D. L3 vertebra
 - E. L4 vertebra

(105).D (106).A (107).A (108).C (109).B (110).B

111. MAC of volatile anesthetics decreases with all of the followings EXCEPT:
- A. Hypercalcemia
 - B. Hyponatremia
 - C. Pregnancy
 - D. Hypothermia
112. There is decrease in static compliance all except :
- A. Bronchial asthma
 - B. Pulmonary fibrosis
 - C. ARDS
 - D. Atelectasis
113. Midazolam has all characteristics EXCEPT:
- A. Water soluble
 - B. Potent than diazepam
 - C. Contain propylene glycol
114. The rate of diffusion of a gas is inversely proportional to the square root of its molecular weight. Which is this law?
- A. Dalton's law
 - B. Boyle's law
 - C. Avogadro's law
 - D. Graham's law
 - E. Fick's law
115. Laminar flow of a gas is affected by
- A. Length
 - B. Radius
 - C. Viscosity
 - D. Density
116. MAC of Isoflurane is:
- A. 0.75
 - B. 1.15
 - C. 1.7
 - D. 2
 - E. 6.8

(111).B (112).A (113).C (114).D (115).C (116).B

117. Most potent and least blood soluble volatile anesthetic
- A. Halothane
 - B. Desflurane
 - C. Methoxyflurane
 - D. Sevoflurane
118. Which of the following volatile anesthetic is unstable with soda lime
- A. Halothane
 - B. Desflurane
 - C. Sevoflurane
 - D. Isoflurane
119. All of the following have parasympathetic fibers EXCEPT
- A. Oculomotor nerve
 - B. Facial nerve
 - C. Stellate ganglion
120. The muscle relaxant of choice in pheochromocytoma
- A. Pancuronium
 - B. Vecuronium
 - C. Atracurium
 - D. tubocurarine
121. The largest blood volume present in which part of the cardio-vascular system
- A. Heart
 - B. Large arteries
 - C. Large veins
 - D. Capillaries
122. Essential hypertension is mostly affected by which parameter
- A. Cardiac output
 - B. Peripheral resistance
 - C. Stroke volume
 - D. Heart rate
123. Mother undergoing cesarean section with bronchial asthma and wheeze, which induction agent is most suitable for the induction of general anesthesia?
- A. Pentothal
 - B. Etomidate
 - C. Propofol
 - D. Ketamine

(117).C (118).C (119).C (120).B (121).C (122).B (123).C

124. Paratharmone has following actions EXCEPTS
- A. Mobilization of calcium
 - B. Retention of phosphate
 - C. Increases calcium level
125. Thiopental all of the followings EXCEPT
- A. Retrograde amnesia
 - B. Increases intraocular pressure
 - C. Decreases blood pressure
 - D. Decreases cardiac output
126. In Bier's block, which one has the least toxicity:
- A. Bupivacaine
 - B. Lidocaine
 - C. Etidocaine
 - D. Mepivacaine
127. All of the following cause shift of oxygen hemoglobin dissociation curve to right EXCET
- A. Acidosis
 - B. Hypoxia
 - C. Hypercapnia
 - D. Cirrhosis
128. Mother during delivery, during uterine contraction exhibit which arrhythmia ?
- A. Paroxysmal ventricular tachycardia
 - B. Ventricular fibrillation
 - C. Atrial flutter
 - D. Atrial fibrillation
129. A patient received 10 units of blood rapidly during surgery, he is likely to develop
- A. Pulmonary fibrosis
 - B. ARDS
 - C. Pulmonary embolism
 - D. Pulmonary edema
130. The major part of CO₂ carried in blood as:
- A. Carbamino compound in RBCs
 - B. Dissolved in plasma
 - C. Bicarbonate
 - D. Carbonic acid

(124).B (125).B (126).B (127).D (128).A (129).B (130).C

131. Metoclopramide which one is true
A. May cause vomiting
B. Decreases gastric acid secretion
C. Is dopaminergic agonist
D. Increased upper G.I.T motility
132. Commonest cause of intestinal obstruction in children
A. Volvulus
B. Intussusceptions
C. Congenital mega colon
D. Congenital hypertrophic pyloric stenosis
133. Cardiac output is highest
A. During First trimester of pregnancy
B. During Second trimester of pregnancy
C. During Third trimester of pregnancy
D. During labour
E. Immediately after labour
134. The spinal cord in children ends at the level of
A. L1
B. L2
C. L3
D. L4
135. The land mark in axillary brachia plexus block is
A. Axillary nerve
B. Axillary artery
C. Brachial artery
D. Median nerve
136. The cause of late respiratory depression in epidural block due to
A. Bupivacaine
B. Lignocaine
C. Adrenaline
D. Morphine sulphate
137. Bretylium side effect
A. Hypertension
B. Postural hypotension
C. Bradycardia
D. Tachypnea

(131).D (132).B (133).E (134).C (135).B (136).D (137).B

138. During CPR atropine is used for its
A. Antisialagogue effect
B. Bronchodilating effect
C. Vagolytic effect
D. Amnesic effect
139. Which one of the following non depolarizing muscle relaxant has a benzyisoquinolones ring?
A. Atracurium
B. Rocuronium
C. Pancuronium
D. Vecuronium
140. Maximum FiO_2 through nasal cannula
A. 25%
B. 30%
C. 35%
D. 40%
E. 45%
141. Which statement regarding Propofol is true
A. It is highly water soluble
B. It has no anti emetic effect
C. It causes pain on injection
D. It cause rise in blood pressure
E. It is not suitable for day case surgery
142. Which one of the following nerve injury causes wrist drop?
A. Ulnar nerve
B. Radial nerve
C. Median nerve
D. Musculocutaneous nerve
143. Normal Alveolar-arterial gradient;
A. 15
B. 20
C. 25
D. 30
144. Most important factor to increased resistance to laminar flow through a tube
A. Radius
B. gas viscosity
C. gas density
D. length of the tube

(138).C (139).A (140).D (141).C (142).B (143).A (144).A

145. Which of the following increases duration, extent, potency of epidural
A. Volume of local anesthetic
B. Concentration of local anesthetic
C. Dose of local anesthetic
D. Speed of injection
146. Most common injury during anesthesia
A. Ulnar nerve injury
B. Common peroneal nerve injury
C. Corneal abrasion
D. Brachial plexus injury
147. Scopolamine all are true except
A. Causes less tachycardia than atropine
B. Causes less bronchodilation than atropine
C. Has less Antisialogogue effect than atropine
D. Causes more sedation than atropine
148. 25 year old man with 25% burn
A. Resistant to depolarizing and sensitive to non depolarizing muscle relaxants
B. Sensitive to depolarizing and resistant to non depolarizing muscle relaxants
C. Resistant to both depolarizing and non depolarizing muscle relaxants
D. Sensitive to both depolarizing and non depolarizing muscle relaxant
149. Which one of the followings local anesthetics has vasoconstricting properties?
A. Bupivacaine
B. Lignocaine
C. Chlorprocaine
D. Procaine
E. Cocaine
150. The most potent volatile anesthetic is:
A. Halothane
B. Sevoflurane
C. Desflurane
D. Methoxyflurane
E. Isoflurane
151. During first minute of apnea PCO_2 rises
A. 3mmHg
B. 4mmHg
C. 5mmHg
D. 6mmHg
E. 7mmHg

(145).C (146).C (147).C (148).B (149).E (150).D (151).D

152. The commonest cause of hospital admission after day case surgery
A. Surgical pain
B. Respiratory complication
C. Blood pressure
D. Postoperative nausea and vomiting
153. Which one of the following is not a suitable candidate for day case surgery:
A. College student who had undergone kidney transplantation 3 years ago
B. Well controlled diabetes mellitus
C. Well controlled high blood pressure
D. 4 months old premature baby
E. 65 year pharmacist who lives 10 miles away from hospital
154. pH of thiopental is:
A. 10.8
B. 6.5
C. 8.1
D. 3.5
155. The eye drop which causes bradycardia
A. Atropine
B. Scopolamine
C. Pilocarpine
D. Phenylephrine
156. The eye drop which causes tachycardia
A. Pilocarpine
B. Timolol
C. Phenylephrine
D. Acetylcholine
157. Approximate blood volume in a 4kg neonate:
A. 380ml
B. 340ml
C. 320ml
D. 300ml
E. 260ml
158. Main nerve supply to larynx:
A. Recurrent laryngeal nerve
B. Superior laryngeal nerve
C. Phrenic nerve
D. Glossopharyngeal nerve

(152).D (153).D (154).A (155).C (156).C (157).B (158).B

159. Cardiac Index is equal to
A. Systolic blood pressure/body surface area
B. Systolic blood pressure/diastolic blood pressure
C. Body surface area/cardiac output
D. Cardiac output/body surface area
160. A twelve year old patient is prepared for dental surgery; his uncle has a history of hemophilia, which lab test should be done?
A. PT
B. APTT
C. Platelet count
D. BT & CT
161. Magnesium Sulphate, which statement is wrong
A. Potentiate neuromuscular blockade
B. Toxicity occurs with serum concentration $\geq 10\text{meq/L}$.
C. It is safe in patients with heart block
D. Caution in patient with renal failure
162. Compliance is
A. Change in volume/change in pressure
B. Change in pressure/change in volume
C. Change in volume/change in temperature
D. Change in temperature/change in volume
163. The common abnormal rhythm which worry the anesthetist during general anesthesia
A. Sinus tachycardia
B. Nodal rhythm
C. 1st degree AV block
D. PVCs
164. Thyrotoxicosis is characterized by each of the following except
A. Hypertension
B. Tachycardia
C. Fever
D. Increased CO_2
165. In adults dural sac ends at the level of
A. L1
B. L2
C. S1
D. S2
E. S3

(159)D (160).B (161).C (162).A (163).D (164).A (165).D

166. Patient with open angle glaucoma receiving ecothiopate eye drops, which is contraindicated
A. Atracurium
B. Pancuronium
C. Succinylcholine
D. Rocuronium
167. Sticking in expiratory valve causes
A. Hypoventilation
B. Increased noise in ventilator
C. Barotrauma
D. Awareness
168. Sodium Nitroprusside
A. Has delayed onset and long duration of action
B. Mainly arteriolar vasodilator
C. May cause cyanide or thiocyanate toxicity
D. It cannot cause methemoglobinemia
169. Scopolamine as a premedication is best avoided in:
A. Closed angle glaucoma
B. Prevention of motion sickness
C. Preoperative sedation
D. Prevention of bradycardia
170. PEEP is not contraindicated in
A. Atelectasis
B. Septic shock
C. Hypoxia
D. Coma
171. Patient with pheochromocytoma, the drug is contraindicated
A. Vecuronium
B. Pancuronium
C. Phenoxybenzamine
D. Phentolamine
E. Labetalol
172. Patient under general anesthesia for anarterectomy developed decreases cardiac output after clamp of aorta due to:
A. Hypoxia
B. Hypovolemia
C. Bleeding
D. Arteriovenous O₂ admixture

(166).C (167).C (168).C (169).A (170).A (171).B (172).B

173. Endotracheal tube migrate nearer to carina with
A. Neck flexion
B. Trendelenburg position
C. From supine to sitting position
D. All of the above
E. None of the above
174. Which agent is competitive antagonist at nicotinic receptors
A. Neostigmine
B. Atropine
C. Atracurium
D. Dantrolene
E. Succinylcholine
175. The late sign of malignant hyperthermia
A. Masseter muscle rigidity(MMR)
B. Tachycardia
C. Myoglobinemia and myoglobinuria
D. Hypercarbia
E. Tachypnea
176. Which one of the following is the earliest and most sensitive indicator of malignant hyperthermia?
A. Hyperthermia
B. Tachycardia
C. The unanticipated doubling or tripling of end-tidal carbon dioxide (Hypercarbia)
D. Tachypnea
E. Masseter muscle rigidity(MMR)
177. Propofol has all of the following properties EXCEPT:
A. Antiemetic
B. Antipyretic
C. Antiemetic
D. Antipruritic
178. Risk of infection through blood transfusion
A. Hepatitis B= 1: 60,000
B. Hepatitis C= 1:100,000
C. HIV (AIDS)= 1:450,000
D. All are correct
E. All are wrong
179. Oculocardiac reflex, what should first immediately be done?
A. Temporary cessation of manipulation
B. Adequate ventilation with O₂ and increased depth of anesthesia
C. Atropine iv
D. Local infiltration of rectus muscle

(173).D (174).C (175).C (176).C (177).B (178).D (179).A

180. Pulmonary capillary wedge pressure (PCWP) all are correct EXCEPT:
A. It provides an indirect measure of left atrial pressure
B. It provides an indirect measure of right atrial pressure
C. It is considered the gold standard for determining the cause of acute pulmonary edema
D. It is important in the diagnosis of acute respiratory distress syndrome (ARDS)
E. It has been used to diagnose severity of left ventricular failure and mitral stenosis
181. Aspiration of gastric contents is more dangerous if
A. Gastric pH is >2.5 and volume is $<25\text{ml}$
B. Gastric pH is <2.5 and volume is $>25\text{ml}$
C. Gastric pH is >2.5 and volume is $<50\text{ml}$
D. Gastric pH is <2.5 and volume is $>50\text{ml}$
182. Relation of femoral artery to femoral vein behind inguinal ligament
A. Medial
B. Lateral
C. Anterior
D. Posterior
183. Relation of femoral nerve to femoral artery behind inguinal ligament
A. Medial
B. Lateral
C. Anterior
D. Posterior
184. Relation of femoral artery to femoral nerve behind inguinal ligament
A. Medial
B. Lateral
C. Anterior
D. Posterior
185. The dural sac in children ends at
A. L1
B. L2
C. S1
D. S2
E. S3
186. Dopamine has following effects:
A. Small doses ($\leq 2\mu\text{g/kg/min}$) activate dopaminergic receptors, which cause vasodilation of the renal vasculature and promotes diuresis
B. Moderate doses ($2 - 10\mu\text{g/kg/min}$) stimulate β_1 receptors, which increase myocardial contractility, heart rate and cardiac output.
C. Higher doses ($10 - 20\mu\text{g/kg/min}$) stimulate α_1 receptors which increase peripheral vascular resistance and a fall in renal blood flow.
D. All of the above

(180).B (181).B (182).B (183).B (184).A (185).E (186).D

187. Higher blood concentration after local anesthesia injection
A. Intercostals
B. Sub cutaneous
C. Para cervical
D. Brachial
E. Sciatic
188. Methemoglobinemia may occur with
A. Lidocaine
B. Prilocaine
C. Chlorprocaine
D. Tetracaine
E. Bupivacaine
189. Interscalene plexus block is not commonly used because all of the following EXCEPT:
A. The ulnar nerve is frequently spared
B. Needs high dose of local anesthetics
C. Shoulder spare
D. Spare medial side of arm
E. Stellate ganglion block
190. The highest pollution in OR is due to
A. Spill valve
B. Soda lime
C. Face mask
D. Endo tracheal tube
E. Laryngeal mask airway
191. Ketamine causes all of the following EXCEPT
A. Tachycardia and hypertension
B. salivation
C. Increased intracranial pressure
D. Bronchoconstriction
E. Emergence delirium, nightmares and hallucinations
192. Most histamine release with
A. Atracurium
B. Cisatracurium
C. Tubocurarine
D. Suxamethonium
E. Pancuronium
193. Drug which can cross blood brain barrier
A. Neostigmine
B. Pyridostigmine
C. Physostigmine
D. Edrophonium

(187).A (188).B (189).C (190).C (191).D (192).C (193).C

194. Isoflurane all true EXCEPT
 A. Colourless
 B. Non inflammable
 C. Isomer of enflurane
 D. Pleasant smell
-
195. Sevoflurane all false EXCEPT
 A. React with soda lime
 B. Chemically alkaline
 C. MAC 6
 D. Blood/gas partition coefficient 2
 E. Metabolites are harmless
196. Fentanyl all true EXCEPT
 A. Depresses respiration
 B. muscle rigidity
 C. bradycardia
 D. absorbed from intestine
197. Normal person breathing spontaneously in upright position, the most ventilated area
 A. Apical zone
 B. Middle zone
 C. Lower zone
 D. All equally ventilated
198. The commonest arrhythmia in hospital for CPR
 A. Atrial flutter
 B. Atrial fibrillation
 C. Ventricular tachycardia
 D. Ventricular fibrillation
 E. Asystole
199. Doubling I.V catheter diameter, increases flow by
 A. 2
 B. 4
 C. 8
 D. 16
 E. 32
200. Application of a positive-pressure threshold during both inspiration and expiration with spontaneous breathing is referred to as:
 A. PEEP
 B. CPAP
 C. PSV
 D. CMV
 E. IMV

(194).D (195).A (196).D (197).A (198).D (199).D (200).B

201. Lies lateral to trachea:
 A. Phrenic nerve
B. Recurrent laryngeal nerve
 C. Vagus nerve
 D. Superior laryngeal nerve
202. DVT can be prevented by
 A. By preventing stasis by physiotherapy, elastic stockings and elevation of the feet
 B. Heparin 5000i.u/8 hourly
 C. Intermittent pneumatic (leg) compression (IPL)
 D. Electrical stimulation of the calf muscle
E. All of the above
203. Obese patient with hiatus hernia for laparoscopic cholecystectomy, mallampati classification is IV, thyromental distance less than 2 inches (5 cm), best way for intubation
 A. Intravenous induction then muscle relaxant then intubation
 B. Inhalational induction then intubation
 C. Awake intubation with sedation
D. Awake intubation
204. Mechanism of action of local anesthetic drugs
 A. By decreasing calcium influx
 B. By decreasing potassium efflux
C. By binding to sodium channels and preventing subsequent channel activation
 D. Alter the resting membrane potential
205. EMLA all are true EXCEPT
 A. Mixture of 2.5% Prilocaine and 2.5% Lidocaine in oil-in-water emulsion
 B. The cream is applied under occlusive dressing for dermal analgesia for at least one hour before
 C. it is used for intravenous catheter insertion, skin grafting, circumcision
D. it can be used on mucous membranes, broken skin, infants less than 1 month old, and patients with a predisposition to methemoglobinemia
206. The rate of systemic absorption of local anesthetic
A. intercostals > caudal > epidural > spinal
 B. Spinal > epidural > caudal > intercostal
 C. Caudal > epidural > intercostals > spinal
 D. Epidural > spinal > caudal > intercostal
207. Post operative nausea and vomiting , common in
 A. Children
 B. Female
 C. Obese
 D. Non-smoker
 E. Prolonged preop fasting
F. All of the above

(201).B (202).E (203).D (204).C (205).D (206).A (207).F

208. Criteria to discharge from day case surgery all EXCEPT
A. Orientation to person, place and time
B. Stable vital signs for 30-60 minutes
C. Ability to move assisted
D. Absence of significant pain and bleeding
209. Decreased intracranial pressure in post operative period for patient with subarachnoid hemorrhage evacuation by all EXCEPT
A. Head elevation to 45°
B. Adequate analgesia
C. Controlled hypotension to SBP 100mmHg
D. Adequate sedation to prevent coughing on the tube
E. Hyperventilation to decrease PaCO₂ to 32
210. Severe faciomaxillary injury, airway is best secured
A. Direct laryngoscopy
B. Blind nasal intubation
C. Laryngeal mask airway
D. Fibre optic laryngoscopy
E. Tracheostomy
211. The highest blood flow in which organ
A. Brain
B. Kidney
C. Liver
D. Heart
E. Spleen
212. In malignant hyperthermia
A. There is an increase in intracellular Calcium
B. Local anesthetic is a triggering agent
C. Pathology is in cytoplasmic reticulum
D. Severity is related to time of exposure
213. Drugs used in treating pulmonary edema all EXCEPT
A. Furosemide
B. Dobutamine
C. Adrenaline
D. Morphine
E. Nitrates
F. Captopril
214. Reduction of after load is beneficial in all EXCEPT
A. Patent ductus arteriosus
B. Mitral regurgitation
C. Aortic stenosis
D. Ventricular septal defect
E. Tetralogy of fallot

(208).C (209).C (210).D (211).C (212).A (213).C (214).E

215. Oxygen content in patient with hemoglobin 10 and PaO₂ 60mmHg
A. 11 ml/dl
B. 13 ml/dl
C. 12 ml/dl
D. 14ml/dl
E. 15ml/dl
216. Magnesium sulphate, for the treatment of eclampsia/pre eclampsia may cause all of the following EXCEPT
A. Cardiac arrest
B. Renal failure
C. Hypotension
D. Hyporeflexia
E. Fetal Myotonia, respiratory depression, apnea
217. N₂O all false EXCEPT
A. ↓ contractility
B. ↓ Heart rate
C. ↓Blood pressure
D. ↓ tidal volume
E. None of the above
218. Enflurane, all are true EXCEPT
A. It is an ether
B. Saturated vapour pressure 23kPa (174mmHg)
C. Metabolized predominantly to fluoride
D. MAC 1.7
E. 1 chlorine, 5 fluoride
F. Seizure activity on EEG
219. All are α-adrenergic EXCEPT
A. Dopamine
B. Adrenaline
C. Ephedrine
D. Phenylephrine
E. Isoproterenol
220. Adrenaline 1:200,000 concentration equals to adrenaline
A. 0.5µg/ml
B. 5µg/ml
C. 25µg/ml
D. 50µg/ml
E. 100µg/ml

(215).B (216).B (217).E (218).E (219).E (220).B

221. 60 years old patient, his BP is 180/60, what will be his mean arterial pressure(MAP)
A. 80mmHg
B. 90mmHg
C. 100mmHg
D. 110mmHg
E. 120mmHg
222. Face mask can give O₂ concentration
A. 30 - 40%
B. 40 - 50%
C. 50 - 60%
D. 60 - 70%
E. 70 - 80%
223. Functional reserve volume (FRC)
A. Inspiratory reserve volume + tidal volume
B. Inspiratory reserve volume + vital capacity
C. Expiratory reserve volume + tidal volume
D. Expiratory reserve volume + residual volume
224. In normal person FEV₁/FVC equals
A. 0.4
B. 0.5
C. 0.6
D. 0.7
E. 0.8 (80%)
225. The commonest arrhythmia during pregnancy
A. Ectopic beats(atrial and ventricular)
B. Atrial flutter
C. Atrial fibrillation
D. Ventricular tachycardia
E. Ventricular fibrillation
226. Isoflurane, all are true EXCEPT:
A. Hypotension
B. Tachycardia
C. intraocular pressure
D. Rapid recovery
E. Unpleasant inhalational induction
227. E type cylinder of N₂O contains
A. 450 L
B. 900 L
C. 1800 L
D. 3600 L

(221).C (222).C (223).D (224).E (225).A (226).C (227).C

228. E type cylinder of O₂ contains
A. 170 L
B. 340 L
C. 680 L
D. 1360 L
229. 2 weeks after burn, the response to muscle relaxants
A. Increased sensitivity to depolarizing while resistance to non depolarizing
B. Resistance to depolarizing while increased sensitivity to non depolarizing
C. Increased sensitivity to both depolarizing and non depolarizing
D. Resistance to both depolarizing and non depolarizing
230. Magnesium sulphate causes all EXCEPT
A. Sedation
B. Analgesia
C. Hypotension
D. Tocolytic
E. CNS depression
231. Vasoconstrictor not affecting the placental blood flow
A. Ephedrine
B. Epinephrine
C. Phenylephrine
D. Phentolamine
E. Isoproterenol
232. The first fibres to be blocked during spinal anesthesia is
A. Sensory fibres
B. Motor fibres
C. Autonomic fibres
D. None of the above
233. Which of the following inhalational agents can be used in the same vaporizer
A. Halothane and Isoflurane
B. Enflurane and halothane
C. Ether and halothane
D. Halothane and Sevoflurane
E. None of the above
234. Local anesthetic which has vasoconstricting property
A. Lidocaine
B. Bupivacaine
C. Cocaine
D. Prilocaine
E. Chlorprocaine

(228).C (229).A (230).B (231).A (232). (233).E (234).C

235. The most common complication of anesthesia
 A. Hypoxia
 B. Hypertension
 C. Bradycardia
 D. Aspiration pneumonia
 E. Malignant hyperthermia
236. Who is not for outpatient anesthesia
 A. 62 year old pharmacist who live 2 miles away from the hospital
 B. 47 weeks post conceptual newborn
 C. 38 year old house wife with hiatus hernia
 D. 30 year old man with successful renal transplantation 3 years ago
237. Most common eye complication during anesthesia
 A. Optic nerve atrophy
 B. Corneal abrasion
 C. Retinal detachment
 D. Intra ocular lesion
 E. Perforated eye lesion
238. All of the following drugs have neuromuscular blocking properties EXCEPT
 A. Gentamycin
 B. Amoxicillin
 C. Neomycin
 D. Streptomycin
 E. Tobramycin
 F. Kenamycin
 G. Amikacin
239. The most common presentation of tracheoesophageal fistula is
 A. Respiratory distress during feeding
 B. Early post delivery hypoxia
 C. Vomiting
 D. Abdominal distension
240. Closure of ductus aretriosus is depending on
 A. pulmonary artery pressure
 B. PaO₂
 C. PaCO₂
 D. PaO₂
241. Post operative myalgia due to succinylcholine
 A. Can be reduced by priming with gallamine before succinylcholine
 B. Is not caused by the initial fasciculation
 C. Is due to increased release of potassium
 D. Due to short duration of action of succinylcholine

(235).A (236).B (237).B (238).B (239).A (240).B (241).A

242. First action in a critically ill patient in road accident lying flat is:
A. Open air way
B. Heimlich maneuver
C. Check pulsation in the carotid area
D. Start chest compression
243. In CPR, patient with VF, intubated, what to do first?
A. Give Lidocaine then DC shock 200J
B. Give Lidocaine only
C. Give DC shock 200J
D. None of the above
244. Oxyhemoglobin dissociation curve (ODC), is shifted to left by all of the following EXCEPT
A. Acidosis
B. The presence of carbon monoxide
C. Hypocapnia
D. Hypothermia
E. ↓ 2,3-diphosphoglyceric acid (2,3-DPG)
245. Carbon dioxide is transported in blood mostly
A. As carboxy-hemoglobin
B. In combination with plasma protein
C. As bicarbonate
D. Dissolved in plasma as carbonic acid
E. At a partial pressure of 5.3kpa in mixed venous blood
246. Insulin causes all of the following EXCEPT
A. Reduced gluconeogenesis
B. Reduced glycongenolysis
C. Synthesis of proteins from amino-acid
D. Entry of potassium into cells
E. Lipolysis
247. All of the following are true about anti diuretic hormone (ADH), EXCEPT
A. Decreased the permeability of the collecting ducts of the kidney.
B. Acts via cyclic AMP
C. Is secreted in response to neural stimuli originating in the hypothalamus
D. Is secreted in response to Hypovolemia even if plasma is hypo tonic
E. Is secreted in response to pain and stress
248. All of the following in the kidney are true, EXCEPT
A. Most sodium is absorbed in the proximal tubule
B. Glucose is not excreted if the serum glucose concentration is normal
C. Tubular cells secrete ammonium ions
D. Acetazolamide acts on tubular production of HCO_3
E. Aldosterone is secreted by the juxtaglomerular apparatus

(242).A (243).C (244).A (245).C (246).E (247).A (248).E

249. All of the following are false about lung compliance EXCEPT
A. Is the reciprocal of airway resistance
B. Is expressed as cmH₂O/Litre
C. Is increased in the presence of emphysema
D. Is decreased in presence of pulmonary edema
E. Is unaffected by anesthesia
250. P waves are absent from ECG in
A. Atrial fibrillation
B. Ventricular tachycardia
C. Massive pulmonary embolism
D. First degree heart block
E. Sinus rhythm
251. During prolonged operations, brain temperature can be monitored accurately at
A. Tympanic membrane
B. Lower third of esophagus
C. Nasopharynx
D. Pulmonary vein
E. Rectus
252. For inhalational anesthetics, their potency is proportional to
A. Vapour pressure
B. Specific gravity
C. Lipid solubility
D. Boiling point
E. Critical temperature
253. The density of a gas
A. Affects the ration of laminar flow through orifice
B. Is independent of temperature
C. Is related to explosive potential
D. Is important in the transmission of turbulent flow
254. The viscosity of the fluid
A. Depends on its density
B. Affects its specific gravity
C. Does not affect resistance to flow
D. Determines its rate of laminar flow
255. Patent ductus arteriosus may close in response to
A. Hypoxemia
B. Prostaglandin E1
C. Heparin
D. Indomethacin
E. Nitrous Oxide

(249).C (250).A (251).A (252).C (253).D (254).D (255).D

256. Soluble insulin
 A. Increases the entry of glucose into muscle cells
 B. Induces protein catabolism
 C. Increases the transport of amino-acids into cells
 D. Is a polypeptide secreted by the alpha cells of Langerhans
 E. Has a duration of actions of 12 hours, when given by subcutaneous injection
257. Pulmonary blood flow
 A. Is distributed equally throughout the lungs
 B. Is decreased by sympathetic stimulation
 C. Is unchanged during exercise
 D. Is not influenced by changes in alveolar PO_2
 E. Is abnormal in the presence of significant pulmonary embolus
258. The is a neurotransmitter at autonomic ganglia
 A. Adrenaline
 B. Noradrenaline
 C. Dopamine
 D. 5-hydroxytryptamine (5-HT)
 E. Acetylcholine
259. Halothane
 A. Increases GIT motility
 B. Increases cerebral blood flow
 C. Is metabolized to an extent of 10% of the administered dose
 D. Increases cerebral metabolic rate
 E. Increases intraocular pressure
260. All of the following about etomidate are true EXCEPT
 A. Is excreted unchanged by the kidneys
 B. Is dissolved in propylene glycol
 C. Increases intra ocular pressure
 D. Causes more venous squeal than thiopentone
 E. Suppresses adrenocortical function
261. The trachea may be deviated to the right in
 A. Right upper lobe fibrosis
 B. Right pleural effusion
 C. Left simple Pneumothorax
 D. Left lower lobe collapse
 E. Retrosternal goiter
262. β -adrenergic agonist with essentially no α -adrenergic activity
 A. phenylephrine
 B. norepinephrine
 C. epinephrine
 D. isoproterenol

(256).A (257).E (258).E (259).B (260).C (261).A (262).D

263. All of the following components contribute to physiologic shunt EXCEPT
A. Bronchial veins
B. Pleural veins
C. Thebesian veins
D. Abnormal arterial venous communications in the lungs
E. Nonperfused alveoli
264. Laminar flow in a tube
A. Occurs only with liquid
B. Cause better mixing than turbulent flow
C. Is independent of Reynolds number
D. Is described by Hagen-Poiseuille equation
E. Never occur in the airway
265. Carbon dioxide is transported in the circulation primarily
A. As dissolved CO₂
B. Bound to proteins as Carbamino compounds
C. Hydrolyzed to carbonic acid
D. Bound to hemoglobin as carboxyhemoglobin
E. Excluded from the red cells
266. The rate that a gas dissolves into liquid depends on all of the following EXCEPT
A. The surface area
B. The partial pressure of the gas
C. The solubility of the gas
D. The ambient pressure
267. All of the following cranial nerves contain parasympathetic efferent fibres EXCEPT
A. Oculomotor nerve (III)
B. Trigeminal nerve (V)
C. Facial nerve (VII)
D. Glossopharyngeal nerve (IX)
E. Vagus nerve (X)
268. All of the following are used to minimize damage caused by cerebral ischemia EXCEPT
A. Thiopental
B. Nimodipine
C. Isoflurane
D. Halothane
E. Hypothermia
269. All of the antibiotics posses neuro-muscular blocking properties EXCEPT
A. Neomycin
B. Kanamycin
C. Penicillin
D. Amikacin
E. Tobramycin

(263).E (264).D (265).C (266).C (267).B (268).D (269).C

270. The test with greatest sensitivity in detecting residual neuromuscular block is
 A. Head tilt
 B. Hand grip
 C. Inspiratory force
 D. Normal tidal volume
 E. T4:T1 > 75%
271. The patient with myasthenia gravis
 A. Has a normal reaction to muscle relaxant
 B. Reacts abnormally to muscle relaxant only when the condition is not well
 C. Has relative resistance to depolarizing muscle relaxant
 D. Has decreased sensitivity to non depolarizing muscle relaxant
272. Which of the following has only α -adrenergic agonist activity?
 A. Epinephrine
 B. Norepinephrine
 C. Methoxamine
 D. Isoproterenol
 E. Ephedrine
273. Midazolam
 A. Is contraindicated in the child
 B. Is shorter-acting than thiopental
 C. Is associated with less frequent venous irritation than diazepam
 D. Suppress adrenal cortical function
 E. Has a high incidence of histamine release
274. Sufentanil
 A. Is less potent than Fentanyl
 B. Is more fat soluble than Fentanyl
 C. Is redistributed to terminate its effect when given in high doses for cardiac surgery
 D. Causes more histamine release than Fentanyl
 E. Produces burst suppression on EEG at high doses
275. Alfentanil
 A. Has larger volume of distribution when compared to Fentanyl
 B. Is 1/3 more potent than Fentanyl
 C. Has a longer terminal $\frac{1}{2}$ life than Fentanyl
 D. Has its effect terminated by redistribution
 E. Does not affect the MAC of enflurane
276. Prilocaine
 A. Is an ester derivative
 B. May be associated with methemoglobinemia
 C. Is a fast onset local anesthetic, with long duration
 D. Is associated with little liver metabolism
 E. Is the drug of choice for the obstetric patient

(270).E (271).C (272).C (273).C (274).B (275).A (276).B

277. Dobutamine
A. Is primarily an α -adrenergic agonist
B. is primarily a β_1 -adrenergic agonist
C. causes decreased renal blood flow
D. is associated with severe increase in heart rate
E. is a naturally occurring catecholamine
278. Dantrolene
A. Has a $\frac{1}{2}$ life of about 36 hours
B. Reduces levels of intra cellular calcium
C. Causes marked cardiac depression
D. Should be administrated daily for 3 days after an episode of malignant hyperthermia
E. Causes nephrotoxicity
279. Age related differences in drug response in elderly includes
A. Increase in MAC
B. Decreased rate of hepatic glucuronidation of morphine
C. Lower required induction dose of thiopental
D. Shorter recovery time to normal ventilatory response after Fentanyl
E. Lower intubation dose of Vecuronium
280. The local anesthetic with the least toxicity after accidental IV injection is
A. Procaine
B. Chlorprocaine
C. Tetracaine
D. Lidocaine
E. Etidocaine
281. The local anesthetic that attains the lowest fetal concentration relative to maternal concentration is
A. Lidocaine
B. Procaine
C. Chlorprocaine
D. Mepivacaine
E. Bupivacaine
282. The major factor associated with the closure of patent ductus arteriosus (PDA) in the newborns
A. Increased PaCO₂
B. Decreased PaCO₂
C. Increased PaO₂
D. Decreased PaO₂
E. Increased pulmonary artery pressure

(277).B (278).D (279).C (280).B (281).C (282).C

283. The Bain Circuit is a modification of
A. Mapleson A system
B. Mapleson B system
C. Mapleson C system
D. Mapleson D system
E. Mapleson E system
284. Desflurane
A. Is highly lipid soluble
B. Has a minimal alveolar concentration(MAC) of 5.5%
C. Is highly water soluble
D. Is not irritant to the airway
E. Metabolism releases significant quantities of fluoride ion
285. The metabolic breakdown of halothane results in
A. Trifluoacetic acid
B. Chloride ion
C. Fluoride ion
D. Bromide ion
E. All of the above
286. The correct ranking of local anesthetic toxicity, from most toxic to least toxic is
A. Tetracaine > bupivacaine > Lidocaine > Chlorprocaine
B. Bupivacaine > Tetracaine > Chlorprocaine > Lidocaine
C. Bupivacaine > Tetracaine > Lidocaine > Chlorprocaine
D. Bupivacaine > Lidocaine > Chlorprocaine > Tetracaine
E. Chlorprocaine > bupivacaine > Lidocaine > Tetracaine
287. The agent with the highest ratio of β -adrenergic agonist to α -adrenergic agonist activity is
A. Isoproterenol
B. Dobutamine
C. Epinephrine
D. Norepinephrine
E. Phenylephrine
288. Antidiuretic hormone (ADH) production is decreased by
A. Increased baroreceptor activity
B. Decreased baroreceptor activity
C. Increased chemoreceptor activity
D. Decreased chemoreceptor activity
E. Decreased extracellular volume

(283).D (284).B (285).E (286).A (287).B (288).A

289. The most important biotransformation responsible for the termination of biological activity of the more lipid soluble barbiturates is
- N-hydroxylation
 - Oxidation of the radical at C-5**
 - Hydrolysis of the barbiturate ring
 - N-dealkylation
 - N-glucosylation
290. The isozyme known as cytochrome P₄₅₀ plays an important role in biotransformation. Which of the following drug inhibits P₄₅₀?
- Ranitidine
 - Sucraflate
 - Pentagastrin
 - Morphine
 - Cimetidine**
291. Carbon monoxide intoxication
- Is a result of the lower affinity of hemoglobin for CO than for O₂
 - Results in a shift of the Oxyhemoglobin dissociation curve to the right
 - Results in low arterial O₂ saturation in the presence of a normal PaO₂**
 - Results in an increase in minute ventilation
 - Results in a marked metabolic alkalosis
292. The most appropriate local anesthetic to use for epidural anesthesia for cesarean section for fetal distress is:
- Lidocaine
 - Bupivacaine
 - 2-chlorprocaine**
 - Mepivacaine
 - Procaine
293. When comparing an adult airway to that of a newborn, which of the following statement is FALSE
- Adults vocal folds have a lower anterior than posterior attachment to the glottis**
 - Newborn have large heads relative to their bodies
 - Newborn's larynx is high in the neck (C3-4), compared to (C4-5) in adult
 - The narrowest portion of the newborn's airway is the cricoid ring.
 - Glossoptosis is abnormal both in adults and children
294. If a patient has pre-renal failure, the urine will
- Be diluted
 - Be concentrated**
 - Have a specific gravity of approximately 1010
 - Be excreted in large amounts
 - Have reddish tinge due to presence of RBCs

(289).B (290).E (291).C (292).C (293).A (294).B

295. The blood component with the least risk of hepatitis is:
A. Fibrinogen
B. Fresh frozen plasma
C. Packed RBCs
D. Albumin/Plasma protein fraction
296. The commonest side effect of succinylcholine
A. Bradycardia on repeated doses
B. Hyperkalemia in paraplegia
C. Hyponatremia
D. Cardiac arrest
297. The term MAC refers to
A. The minimum alveolar concentration
B. An anesthetic dosage which prevent movement after incision in 50% of patients
C. A measurement not affected by age
D. A measurement that is pertinent only to volatile anesthetics
E. The maximum alveolar concentration
298. Signs of inadequate general anesthesia include all of the following EXCEPT
A. Eyelid movement
B. Papillary constriction
C. Hyperventilation
D. Sweating
E. Limb movement
299. As a patient becomes more deeply anesthetized, the last sense to disappear is
A. Smell
B. Vision
C. Pain
D. Discomfort
E. Hearing
300. A patient has chronic obstructive pulmonary disease requiring the constant administration of oxygen. He is dyspneic at rest and can walk at most 20 feet before needing to rest. He is scheduled to undergo an exploratory laparotomy because of a small bowel obstruction. He would be classified by the American Society of Anesthesiologists as physical status.
A. III
B. IIIE
C. IVE
D. V
E. VE

(295).D (296).A (297).B (298).B (299).E (300).C

301. The state of general anesthesia may be reversed by
A. The administration of a competitive antagonist
B. Increasing the atmosphere pressure
C. Increasing the ambient temperature
D. Decreasing the ambient temperature
E. The administration of any medication which increases cerebral perfusion
302. The likelihood of intraoperative awareness under general anesthesia is highest with the use of.
A. Inadequate benzodiazepine doses
B. High dose opioids
C. Muscle relaxants
D. No premedication
E. Nitrous oxide as the sole gaseous anesthetic
303. Stage 2 anesthesia can be characterized by all of the following signs EXCEPT
A. Amnesia
B. Purposeless movement
C. Hypoventilation
D. Disconjugate gaze
E. Increased airway reflexes
304. Which of the following medications is not recommended during general anesthesia for the removal of a pheochromocytoma
A. Curare
B. Fentanyl
C. Enflurane
D. Vecuronium
E. Diazepam
305. Depth of anesthesia with inhalational agents is primarily due to
A. Rate of ventilation
B. Potency of the anesthetic agent
C. Age of the patient
D. Concentration of the agent in the brain
E. Cardiac output
306. Contraindications to the discharge to home of a patient when had a hernia repair under general anesthesia include all of the following EXCEPT
A. Nausea
B. Inability to drink liquids without vomiting
C. Heart rate 50% higher than the preoperative value
D. Inability to walk due to groin pain
E. Disorientation to person and place

(301).B (302).E (303).C (304).A (305).D (306).A

307. The dermatome level at the nipple line is
 A. C8
 B. T2
 C. T4
 D. T6
 E. T8
308. The axillary approach to the brachial plexus
 A. Carries the risk of Pneumothorax
 B. Uses the axillary artery as a landmark
 C. Is made from the lateral aspect of the arm
 D. Uses the pectoralis minor insertion as a landmark
 E. Is the preferable route if there is an infection in the axilla
309. When using the caudal approach to the epidural space
 A. The needle enters through the sacral hiatus
 B. An inadvertent subarachnoid block is much less likely than when using the lumbar approach
 C. The patient must be positioned prone
 D. The technique becomes relatively more contraindicated as the patient's decreases
 E. Small volume of agents needed, since the volume of the canal is only 8 to 12 ml.
310. Pos dural puncture headache
 A. More frequent with large bore needles
 B. Not lessened by the use of a Whitacre needle as compared to a Quincke needle
 C. Aggravated by the supine position
 D. Noted immediately
 E. Relieved in 12 hours by an epidural blood patch
311. The pain of carcinoma of pancreas can be blocked by
 A. Celiac plexus block
 B. Intercostal block
 C. Lumbar sympathetic block
 D. Stellate ganglion block
 E. Facet block
312. In performing a lumbar puncture by the paramedian approach, all of the following are true EXCEPT
 A. It is necessary to flex the spine
 B. The needle penetrates the ligamentum flavum
 C. The lateral or sitting position is satisfactory
 D. The needle does not penetrate the interspinous ligament
 E. The needle enters between the laminae

(307).C (308).B (309).A (310).A (311).A (312).

313. The first modality to be lost upon the onset of spinal anesthesia is
- A. Touch
 - B. Motor power
 - C. Temperature
 - D. Vibration
 - E. Autonomic activity
314. A complication of aortic surgery is paraplegia that is most commonly due to
- A. Pressure on the spinal cord during surgery
 - B. Long periods of hypotension
 - C. Hypothermia associated with the surgery
 - D. Spinal cord ischemia
 - E. Loss of cerebrospinal fluid (CSF)
315. Anesthesia for carotid artery surgery
- A. May cause decreased cerebral oxygen consumption
 - B. Involve the use of deliberate hypotension
 - C. Carries no danger of cerebral infarction
 - D. Should always be preceded by tests to show if carotid clamping can be tolerated
 - E. Requires general anesthesia
316. Cryoprecipitate is a poor source of
- A. Fibrinogen
 - B. Von Willebrand factor
 - C. Factor VIII, deficient in hemophilia A.
 - D. Factor IX, deficient in hemophilia B
 - E. Factor XIII, required for cross linking fibrin
317. When ventilating the patient with a head injury, all of the following statements are true EXCEPT
- A. the patient should be kept supine
 - B. Prolonged hyperventilation has diminished efficacy in reducing intracranial pressure (ICP)
 - C. Positive end expiratory pressure (PEEP) may be appropriate
 - D. Hypoxia and Hypercarbia should be avoided
318. Mannitol may lead to subdural hematoma by
- A. Causing cerebral edema
 - B. Affecting clotting mechanisms
 - C. Leading to cortical vein disruption
 - D. Causing hypertension
 - E. Leaking through the vein wall

(313).E (314).D (315).A (316).D (317).A (318).C

319. The best agent to decrease cerebral oxygen requirement is
A. A muscle relaxant
B. A glucose solution
C. An anticonvulsant
D. A barbiturate
E. Oxygen by mask
320. The use of succinylcholine to facilitate endotracheal intubation in patient with increased intracranial pressure is associated with
A. Increased intracranial pressure
B. No change in intracranial pressure
C. Incomplete relaxation
D. Conditions more satisfactory than those with the use of pancuronium
E. Hyperkalemia
321. Treatment of the neurological patient with Mannitol may be followed by all of the following EXCEPT
A. Initial Hypervolemia
B. Decreased urine volume
C. Decreased venous pressure
D. Hypovolemia
E. A fall in arterial pressure
322. Nitrous oxide should be avoided in patients with
A. Brain tumor
B. Cerebral hemorrhage
C. Head injury
D. Recent pneumoencephalography
E. Meningioma
323. Sign of air embolism include all of the following EXCEPT
A. Arrhythmia
B. Hypertension
C. Heart murmur
D. Bubbles at the operative site
E. Decreased end-expired carbon dioxide
324. Following closed head injury, systemic sequel may include all of the following EXCEPT
A. Disseminated intravascular coagulation
B. Diabetes insipidus
C. Syndrome of inappropriate secretion of Antidiuretic hormone
D. Hyperglycemia
E. Hypocarbica

(319).D (320).A (321).B (322).D (323).B (324).E

325. Electroconvulsive therapy (ECT)
- A. Is relatively contraindicated in patients with known cerebral or aortic aneurysms
 - B. Never produces seizure
 - C. Is not contraindicated in patients with intracranial mass lesion
 - D. Does not require hemodynamic monitoring
 - E. Cannot be performed with muscle relaxant
326. Once detected, the management of the patient with venous air embolism include all of the following EXCEPT
- A. Inform the surgeon
 - B. Discontinue nitrous oxide
 - C. Induce hypertension
 - D. Decrease elevation of patient's head
 - E. Control ventilation
327. Magnesium Sulfate
- A. Does not cross the placenta
 - B. Has therapeutic levels between 6 – 8 mEq/L
 - C. May produce respiratory depression in the neonate
 - D. Is a central nervous system stimulant
 - E. Decreases sensitivity to neuromuscular blocking agents
328. Which of the following statements regarding drug effects in the peripartum is true
- A. Benzodiazepines can prolong labor
 - B. Barbiturates cause no neonatal depression
 - C. Ketamine adversely affects uterine blood flow
 - D. An advantage of butorphanol is absence of respiratory depression
 - E. Morphine produces more respiratory depression of the newborn than does meperidine in equianalgesic doses
329. An infant born with a heart rate of 70, a weak cry, good muscle flexion, poor reflexes, and a blue-pale complexion would be given an Apgar score of
- A. 2
 - B. 4
 - C. 5
 - D. 6
 - E. 7
330. In the anesthetic management of a patient with pre eclampsia, all of the following are important EXCEPT
- A. Hypertensive crises may occur
 - B. The fetus usually is premature
 - C. Convulsions may be imminent
 - D. Oxygen consumption is decreased
 - E. Inadequate pain relief may aggravate the hypertension

(325)A (326).C (327).C (328).E (329).C (330).D

331. Pre eclampsia is associated with
- A. Hypovolemia
 - B. Hypernatremia
 - C. Low hematocrit reading
 - D. Hyperkalemia
 - E. Hypotension
332. In the delivery of a breach presentation
- A. Opioids should be avoided at all stages
 - B. Oxygen should be avoided for fear of harming the fetus
 - C. Pudendal and subarachnoid blocks may be used and still maintain the bearing down reflex
 - D. Relaxation of the perineum is important
 - E. A saddle block should be administered early
333. Measures to prevent aspiration pneumonia include all of the following EXCEPT
- A. Administration of an antacid before delivery
 - B. Rapid intubation
 - C. Rapid induction
 - D. Determination of the last time the patient has eaten
 - E. Cricoid pressure
334. Post dural puncture headache
- A. Is worse in the supine position
 - B. Is of higher incidence following puncture with a 25 gauge needle
 - C. Is more prevalent in no pregnant patients
 - D. Will be worse with a large dural hole
 - E. Is lessened if the patient is dehydrated
335. Prophylactic measures taken to prevent maternal hypotension following spinal anesthesia include all of the following EXCEPT
- A. Administration of 500 to 1000ml of fluid before induction
 - B. Lateral displacement of the uterus
 - C. Head down tilt immediately after injection
 - D. Placing the patient on her side after block is established
 - E. Infusion of vasopressor
336. If sedative or opioids are given to a woman in labour they should be given in the
- A. Latent phase
 - B. Acceleration phase
 - C. Phase of maximum slope
 - D. Deceleration phase
 - E. Second stage of labour

(331).A (332).D (333).D (334).D (335).C (336).C

337. During delivery, a lower dose of local anesthetic is required for regional anesthesia, because
- A. Pregnant woman have greater pain tolerance
 - B. The pain fibers are more superficial in the spinal canal
 - C. The epidural and subarachnoid space are larger
 - D. The epidural and subarachnoid spaces are decreased in size
 - E. Maternal hyperventilation decreases pain
338. In preeclamptic or eclamptic patients
- A. Regional anesthesia is contraindicated
 - B. Hyporeflexia is common
 - C. Fluid restriction is necessary because of presence of edema
 - D. Resistance to vasopressors is common
 - E. Significant coagulopathies may occur
339. Which statement is correct regarding epidural blood patches?
- A. The success rate is approximately 50%
 - B. The presence of backache after the procedure implies improper technique
 - C. The incidence of infection following the procedure is approximately 2%
 - D. Epidural saline injection has the same success rate as an epidural blood patch
 - E. If the site of dural rent is uncertain, the lowermost interspace should be used
340. Uterine atony may be treated with all of the following EXCEPT
- A. Uterine massage
 - B. Intramuscular methylergonovine
 - C. Intrauterine prostaglandin F_{2α}
 - D. Intravenous methylergonovine
 - E. Intravenous oxytocin
341. Regional anesthesia is contraindicated in
- A. Vaginal birth after cesarean section
 - B. Abruptio placenta
 - C. Diagnosis of placenta previa
 - D. Thrombocytopenia and elevated bleeding time
 - E. Eclampsia
342. All of the following techniques can be employed to relieve pain during first stage of labour EXCEPT
- A. Paracervical block
 - B. Epidural anesthesia
 - C. Spinal anesthesia
 - D. Lumbar sympathetic block
 - E. Pudendal block

(337).D (338).E (339).E (340).D (341).D (342).E

343. The systolic blood pressure of the normal full term neonate is usually
- A. 50 – 60 mmHg
 - B. 60 – 70 mmHg
 - C. 70 – 80 mmHg
 - D. 90 – 100 mmHg
 - E. 100 – 110 mmHg
344. Changes in cardiovascular and hemodynamic parameters at birth include all of the followings EXCEPT
- A. Closure of the foramen ovale
 - B. Ductal closure
 - C. Decreased afterload on the left ventricle
 - D. Increased pulmonary return
 - E. Large increase in volume load on left ventricle
345. An infant born with Apgar scores of 2 and at 1 minute and 5 minutes of life respectively. Initial resuscitation should include all of the following EXCEPT
- A. Oxygen
 - B. Radiant heat
 - C. Intubation
 - D. Glucose
 - E. bicarbonate
346. An infant under anesthesia loses body heat by all of the following routes EXCEPT
- A. The metabolism of brown fat
 - B. Breathing dry gases
 - C. Conduction to cold surroundings
 - D. Cold skin preparation solutions
 - E. Exposure of abdominal contents
347. The first sign of malignant hyperthermia in an anesthetized infant is frequently
- A. Rapid rise in body temperature
 - B. Tachycardia
 - C. Hot skin
 - D. Arrhythmia
 - E. Hot circle absorber
348. The most important factor in maintaining Normothermia in the operating room is
- A. Body temperature at the beginning of the procedure
 - B. Room temperature
 - C. Use of a warming blanket
 - D. Use of a warm fluids
 - E. Temperature of “prep” solutions

(343).C (344).C (345).D (346).A (347).B (348).B

349. If a child who is admitted with and incarcerated inguinal hernia has a mild upper respiratory tract infection the
- A. Surgery should be cancelled
 - B. Surgery should be allowed to proceed, but the child should not be intubated
 - C. Child should be started on antibiotic and the surgery should proceed
 - D. Surgery should proceed with careful monitoring
 - E. Patient should be operated only under spinal anesthesia
350. Preparation for surgery of the patient with sickle cell disease should include all of the following EXCEPT
- A. Transfuse to a hemoglobin level of 10g/dl
 - B. Treat infection
 - C. Maintain good hydration
 - D. Provide good pulmonary care
 - E. Avoid stasis of blood flow
351. A 16 year old patient with Down's syndrome is admitted for dental extraction. In the preoperative preparation
- A. Atropine should be avoided
 - B. Opioids should be avoided
 - C. Neck mobility should be documented
 - D. Heavy sedation is required
 - E. Anticonvulsants should be withheld
352. The best method for the prevention of the Oculocardiac reflex is
- A. Preoperative atropine
 - B. A retrobulbar block
 - C. Intravenous atropine during the procedure
 - D. Administration of Vecuronium
 - E. Administration of Neostigmine
353. A technique most useful in the treatment of bronchopulmonary fistula is
- A. Spontaneous breathing with mask
 - B. Assisted ventilation with positive pressure
 - C. Controlled ventilation with a mechanical ventilator
 - D. Positive end expiratory pressure (PEEP)
 - E. High frequency jet ventilation
354. The pressure within a tracheal tube cuff that will interrupt mucosal blood flow is
- A. 5 mmHg
 - B. 10 mmHg
 - C. 15 mmHg
 - D. 20 mmHg
 - E. 30 mmHg

(349).D (350).A (351).C (352).C (353).E (354).E

355. The patient with a "full stomach" is no longer at risk for aspiration
- A. Once fully relaxed with a nondepolarizing muscle relaxant
 - B. After the stomach has been decompressed with a nasogastric tube
 - C. After proper placement of a cuffed endotracheal tube in the trachea
 - D. If he or she is gagging on the endotracheal tube prior to extubation
 - E. None of the above
356. Pulmonary aspiration is most reliably diagnosed by
- A. Tachypnea
 - B. Rales on chest auscultation
 - C. Infiltrate on chest radiograph
 - D. Arterial hypoxemia
 - E. Visualization of gastric contents in the oropharynx
357. Application of appropriate PEEP in a patient with adult respiratory distress syndrome (ARDS) achieve all of the followings EXCEPT
- A. Decreased total lung water
 - B. Improved lung compliance
 - C. Decreased intrapulmonary shunting
 - D. Diminished alveolar over distension
 - E. Improved arterial oxygenation
358. If a patient undergoing thoracotomy receives intercostal blocks with bupivacaine, his post operative period will
- A. Be little different from controls
 - B. Show marked improvement in respiratory function over controls
 - C. Show little difference in vital capacity but marked pain relief
 - D. Be marked by hyperventilation
 - E. Be marked by increased incidence of atelectasis
359. The direct mechanism of action of non steroidal anti inflammatory drugs is
- A. The inhibition of prostaglandin synthesis
 - B. The release of substance P
 - C. The direct action upon the μ -opioids receptor
 - D. The inhibition of substance P release
 - E. Decreased neuronal stimulation
360. Advantages of patient controlled analgesia include all of the followings EXCEPT
- A. High patient satisfaction
 - B. Elimination of painful injections
 - C. No need to titrate drug with increasing age
 - D. More consistent level of analgesia
 - E. The ability of the patient to titrate pain relief to painful procedures such as chest physical therapy

(355).E (356).D (357).A (358).B (359).A (360).C

361. The most specific and immediate treatment for nausea and vomiting through secondary to epidural morphine is
- A. Droperidol 0.625 IV
 - B. A transdermal scopolamine patch
 - C. Naloxone 0.4 mg by mouth every 2 hours as needed
 - D. A transdermal clonidine patch
 - E. Naloxone 5µg/kg/hr i.v
362. A 40 year old woman is seen in the pain clinic. She complains of a burning pain in her right hand. This pain is exacerbated by the slightest touch, and she says that the hand sometimes turns blue. The one best nerve block to elucidate a diagnosis is
- A. Axillary block
 - B. Bier block
 - C. Lumbar sympathetic block
 - D. Stellate ganglion block
 - E. Interscalene block
363. The most common time for untoward anesthetic incidents to occur is
- A. Pre-induction
 - B. Induction
 - C. middle of procedure
 - D. End of procedure
 - E. After procedure
364. The differential diagnosis of cyanosis during or immediately following anesthesia includes all of the following EXCEPT
- A. Asphyxia from diffusion anoxia
 - B. Central respiratory stimulation
 - C. Upper respiratory tract obstruction
 - D. Atelectasis
 - E. Respiratory paralysis from high spinal
365. The most common cause of anesthetic disasters is
- A. Aspiration pneumonia
 - B. Halothane hepatitis
 - C. Circulatory instability
 - D. Malignant hyperthermia
 - E. hypoxemia
366. All of the following are complications of tracheostomy EXCEPT
- A. Infection of the tracheo-bronchial tree
 - B. Tracheal erosion
 - C. Arytenoids cartilage damage
 - D. Stomal stricture
 - E. Plugged tube

(361).E (362).D (363).C (364).B (365).E (366).C

367. The treatment of suspected transfusion reaction include all of the followings EXCEPT
- A. Stopping the transfusion
 - B. Infusion of 500 ml of 20% Mannitol
 - C. Treating hypotension
 - D. Giving fluids at a rate sufficient only to keep intravenous lines open
 - E. Alkalinizing the urine
368. The anesthetic relatively contraindicated in patients with multiple sclerosis is
- A. Spinal
 - B. Halothane
 - C. Isoflurane
 - D. Nitrous oxide
 - E. opioids
369. Patients who undergo outpatient surgery with Isoflurane should not drive or operate machinery for at least
- A. 30 minutes
 - B. 1 hour
 - C. 4 hour
 - D. 8 hour
 - E. 16 hour
370. A 65 kg 75 year old woman is undergoing a cataract extraction under monitored anesthesia care (conscious sedation). You administer 20 mg of methohexital intravenously prior to the performance of a retro bulbar block by the surgeon. At that time the heart rate as measured by the electrocardiogram is 40, the proper course of action to be taken next
- A. Endotracheal intubation
 - B. Administer atropine 0.4mg iv
 - C. Cancel the surgery pending pacemaker insertion
 - D. Request that the surgeon stop manipulation
 - E. Start chest compression
371. Complications of anesthesia in the sitting positions include all of the following EXCEPT
- A. Pnumocephalus
 - B. Venous air embolus
 - C. Hypertension
 - D. Facial edema
 - E. Sciatic nerve injury
372. Oxygen toxicity
- A. Develops after breathing 100% oxygen for 12 hours
 - B. Is not dose-related
 - C. Develops after 36 hours of exposure to 25% oxygen
 - D. Is due specifically to the oxygen molecule
 - E. Is so important that 100% oxygen should never be used

(367).D (368).A (369).E (370).D (371).C (372).A

373. Continuous spinal anesthesia with a small caliber subarachnoid catheter is no longer a recommended anesthetic technique because of
- A. The high incidence of post dural puncture headache
 - B. The risk of arachnoiditis
 - C. Some occurrences of cauda equine syndrome
 - D. Difficulty in controlling the spread of the local anesthetic
 - E. Some occurrence of the catheter tearing during removal
374. Preeclampsia is characterized by
- A. Seizure
 - B. Proteinuria
 - C. Occurrence anytime during pregnancy
 - D. No change in placental perfusion
 - E. Decreased production of renin
375. Side effects of intrathecal morphine include all of the following EXCEPT
- A. Pruritus
 - B. Hypotension
 - C. Nausea and vomiting
 - D. Urinary retention
 - E. Respiratory depression
376. An 85 year old patient has a normal value of 1.0mg/dl for serum creatinine compared with a 20 year old patient of the same weight with the same serum creatinine value the 85 year old patient has approximately what fractional value of creatinine clearance
- A. 0.1
 - B. 0.2
 - C. 0.5
 - D. 0.7
 - E. 0.9
377. Injection of thiopental will lead to dose dependent
- A. Decrease in arterial blood pressure
 - B. Increase in stroke volume
 - C. Increase in cardiac output
 - D. Bradycardia
 - E. Decrease in coronary blood flow
378. Administration of Ketamine causes
- A. Decreased heart rate
 - B. Increased heart rate
 - C. Decreased cardiac output
 - D. No change in cardiac output
 - E. No change in heart rate

(373).C (374).B (375).B (376).C (377).A (378).B

379. A laryngeal mask airway
- A. May be used to treat postoperative obstruction
 - B. Protects against aspiration of gastric contents
 - C. Is usually inserted blindly
 - D. Requires the patient to breathe spontaneously
 - E. Is an effective treatment for laryngospasm
380. General anesthesia as compared to regional anesthesia in parturient is associated with all of the following EXCEPT
- A. Less hypotension
 - B. Less cardiovascular instability
 - C. Less uterine relaxation
 - D. More rapid induction
 - E. Better control of airway
381. A double lumen tube is used for anesthesia patients with severe
- A. Asthma
 - B. Hemoptysis
 - C. Emphysema
 - D. Pneumonia
 - E. Tracheal stenosis
382. All are the causes of air way obstruction after thyroid surgery EXCEPT
- A. Tracheomalacia
 - B. Tetany
 - C. neck hematoma
 - D. recurrent laryngeal nerve palsy
383. 31 year old patient with head injury who is not opening his eyes to any stimulus, not responding to any verbal or motor stimulus, his GCS is
- A. 0
 - B. 1
 - C. 2
 - D. 3
 - E. 4
384. Propofol peak effect in the brain after
- A. 1 minute
 - B. 2 minute
 - C. 3 minute
 - D. 4 minute
 - E. 5 minute

(379).C (380).C (381).B (382).B (383).D (384).A

385. All of the following drugs have more than 80% plasma protein binding EXCEPT
- A. Morphine
 - B. Propofol
 - C. Pethedine
 - D. Alfentanyl
 - E. Ketamine