CCEMTP

SELF ASSESSMENT TEST #2

*This tool has been designed to encourage studying, verifying and being able to identify correct vs incorrect. Students should verify all answers with the student resource materials available from UMBC and other references. Discuss any questions with the individual instructors if you need clarification/further info.

1. A Critical Care Transport Team is composed of:
   a. LPN, Paramedic, First Responder
   b. EMT driver, RN, Paramedic
   c. Physician, Paramedic
   d. Paramedic, RN, Phlebotomist

2. Which of the following advanced procedures can be utilized by a Critical Care Transport Team?
   a. Rapid Sequence Induction
   b. Monitoring of an arterial line
   c. Needle and Surgical cricothyrotomy
   d. All of the above

3. If a patient needs to be transported to a facility approximately 110 miles away, the preferred mode of transport is:
   a. Ground
   b. Fixed wing
   c. Rotor
   d. Mobile

4. An effective method for reducing the risk of liability is:
   a. Avoiding high risk patients likely to file a lawsuit
   b. Adequately documenting all procedures
   c. Being knowledgeable about the professional standards of care that apply to you
   d. B and C

5. Patient diagnosis and treatment should be based on:
   a. Current laboratory data for the patient
   b. Thorough patient history
   c. Findings of the physical examination
   d. All of the above

6. A 35 year old female patient has been admitted with a chief complaint of severe headache, nausea and vomiting, and photophobia. What do the following CBC values indicate?
   HCT 40, Hgb 14, RBC 4.5, WBC 5000
   a. Normal values
   b. Abnormally high hemoglobin
   c. Abnormally low RBC and WBC counts
   d. Abnormally high hematocrit

7. PO₂ and PCO₂ measure the __________ component of blood gases, while HCO₃⁻ and base excess measure the __________ component.
   a. Normal ; abnormal
   b. Nonrespiratory ; respiratory
   c. Excess ; deficit
   d. Respiratory ; metabolic
8. Which of the following blood gas values reflects compensation?
   a. pH 7.38; PCO2 60; HCO3 30
   b. pH 7.26; PCO2 55; HCO3 24
   c. pH 7.48; PCO2 30; HCO3 22
   d. pH 7.30; PCO2 32; HCO3 18

9. As a Critical Care Professional, you are legally obligated to a patient to:
   a. Have knowledge of policies and procedures
   b. Provide a maximum level of competency
   c. Provide reasonable and prudent care
   d. All of the above

10. Increased Liver enzymes can indicate:
    a. TB
    b. Flu
    c. HIV
    d. Hepatitis

11. A 26 year old has undergone extensive surgery requiring blood transfusions. Urinalysis reveals the presence of hemoglobinuria, a condition in which:
    a. There is an abnormal presence of blood in the urine
    b. Excessive hemoglobin is present for oxygen transport
    c. Hemoglobin is present in the urine, unattached to red blood cells
    d. A and B

12. A test used to determine the presence of occult blood in the GI tract is:
    a. Guaiac
    b. Prothrombin
    c. Thromboplastin
    d. CSF

13. Shock can occur as a result of fluid shifting from the intravascular space to the extravascular space. This can result from:
    a. Loss of extravascular integrity
    b. Decreased capillary membrane permeability
    c. Decreased colloidal osmotic pressure
    d. None of the above

14. The initial signs and symptoms of ___________ shock will be hindered if the patient is taking beta-blockers:
    a. Superficial
    b. Compensated
    c. Decompensated
    d. Irreversible

15. Which of the following is least likely to develop Multiple System Organ Failure?
    a. An 86 year old female in septic shock
    b. A 12 year old with a spiral fracture of the left radius/ulna
    c. A farmer suffering from organophosphate poisoning
    d. A 26 year old male that is HIV positive

16. Which of the following physiologic data is useful in diagnosing sepsis?
    a. Cultures of blood, urine, sputum or wounds
    b. Arterial blood gases reflecting hypoxia and respiratory alkalosis
    c. CBC reflecting elevated WBC counts
    d. All of the above
17. Which of the following **IS NOT** a major component of the immune system?
   a. Leukocytes
   b. Lymphocytes
   c. Antigens
   d. Antibodies

18. Transmission of the Herpes Zoster virus results in a disease known as:
   a. Hepatitis B
   b. HIV
   c. Karpos Sarcoma
   d. Shingles

19. Which of the following statements **is FALSE** regarding right to left cardiac shunting?
   a. There is enough hemoglobin to carry the oxygen
   b. The heart is strong enough to circulate the blood
   c. Some venous blood never passes through the lungs
   d. The lungs fail to fully oxygenate the blood

20. In assessing a patient with asthma, the PaO2 will assist in obtaining information of what nature:
   a. The effectiveness of ventilation
   b. The degree of dyspnea
   c. The efficiency of gas exchange
   d. The patient's functional respiratory status

21. Which of the following **IS NOT** a component of an arterial blood gas measurement?
   a. Acid-base balance
   b. Bicarbonate levels
   c. Oxygen saturation
   d. Hemoglobin

22. Which of the following is/are **CORRECT** regarding a tension pneumothorax?
   I. It occurs when air leaks into the pleural space during inspiration and is trapped
   II. There should be adequate breath sounds on the affected side
   III. Absence of tracheal deviation would rule out pleural decompression
   IV. Occurs as a result of penetrating, not blunt trauma
   a. I, II
   b. II, IV
   c. III, IV
   d. I

23. In regard to pleural decompression, the “Angle of Louis” is:
   a. The proper site for needle punctures
   b. Used to locate the mid-clavicular line
   c. Used to locate the second intercostal space
   d. Used to locate the lateral puncture site

24. 200 cc's of clear, amber fluid have been withdrawn from the right pleural space of a patient who has just undergone pleural decompression. Which of the following positions would maximize the patient's oxygenation?
   a. Fowler’s
   b. Right lateral recumbent
   c. Prone
   d. Supine
25. Which of the following is **FALSE** with regard to the indications for the placement of a chest tube?
   a. Pleural effusion
   b. Hemothorax
   c. Pulmonary embolus
   d. Pneumothorax

26. Which of the following is the best way to determine proper chest tube positioning?
   a. Lung sounds are auscultated
   b. A chest x-ray is performed
   c. ABG's are drawn
   d. Oxygen saturation will increase

27. Which of the following is **CORRECT** with regard to the ideal position for transporting a patient with a chest tube?
   a. Fowler's
   b. Trendelenburg
   c. Supine
   d. Left laterally recumbent

28. Which of the following is **CORRECT** regarding the use of automatic ventilators?
   a. They are incapable of delivering higher minute volumes than the bag-valve mask
   b. Most units deliver controlled ventilation only
   c. Some units can be safely used in all age groups
   d. The pop-off valves should be disengaged

29. A patient on a portable ventilator suddenly develops dyspnea and unilateral chest pain. Lung sounds are absent on one side. Hypotension and tracheal deviation are also present. Which of the following is the **CORRECT** action for these findings?
   a. Suction the patient
   b. Reposition the endotracheal tube
   c. Increase the Vt on the ventilator until bilateral lung sounds return
   d. Suspect a tension pneumothorax

30. Which of the following is the most serious drawback of using positive pressure/demand valves?
   a. Lung compliance cannot be felt
   b. High airway pressures are created
   c. They consume a high volume of oxygen
   d. They require an external power source

31. Which of the following statements is **CORRECT** regarding ET suctioning?
   a. The maximum length of time for suctioning is 30 seconds
   b. Suction should be intermittently applied during catheter insertion
   c. Rigid suction catheters should not be used in trauma patients
   d. Sterile technique is indicated when using a soft, flexible catheter

32. Which of the following **IS NOT** a goal of Rapid Sequence Induction?
   a. Allows visualization of airway anatomy for the intubation of c-spine injurer patients
   b. Rapid airway control with minimal trauma
   c. Prevention of aspiration and regurgitation
   d. Prevent rise in intracranial pressure
33. Which of the following is FALSE regarding the use of succinylcholine?
   I. Its effects can be reversed with narcan
   II. It is administered at 1 -2 mg/kg
   III. It is contraindicated in patients with agonal respirations
   IV. It is a nondepolarizing muscle relaxant
   a. I, II, III
   b. II, III, IV
   c. III
   d. I, IV

34. Which of the following IS NOT an indication for a tracheostomy?
   a. To protect the lower airway from aspiration
   b. Reduce anatomical dead space
   c. When intubation is delayed
   d. Long term mechanical ventilation

35. Proper lung auscultation includes listening to breath sounds:
   a. For a full minute at the apex and base
   b. For a full breath at the apex and base, anterior and posterior (6 places)
   c. Where the suspected problem lies
   d. Every 3-5 minutes in critical patients

36. Which of the following is CORRECT regarding the most lethal complication of tracheostomy?
   a. Tracheal stenosis
   b. Pneumonia
   c. Previous intubation
   d. Accidental displacement of the tube

37. Which of the following is CORRECT with regard to needle cricothyrotomy?
   a. It requires more time as compared to a surgical cricothyrotomy
   b. It requires minimal equipment
   c. A more definitive airway is urgently warranted
   d. Retrograde airflow through the mouth and nose are not a concern

38. Airflow into the lungs during inspiration depends on all of the following EXCEPT:
   a. Contraction of the muscles of respiration
   b. Enlargement of the thoracic cavity
   c. Lowered intrathoracic pressure
   d. Relaxation of the diaphragm

39. Which of the following procedures should be attempted prior to establishing a surgical airway?
   I. Needle cricothyrotomy
   II. Heimlich maneuver
   III. Intubation
   IV. Mechanical removal of an obstruction with forceps
   a. I, II, III
   b. I, II, IV
   c. I, III, IV
   d. II, III, IV
40. Which of the following is **CORRECT** regarding retrograde intubation?
   I. It requires hyperflexion of the neck.
   II. It can be performed despite the presence of blood in the upper airway.
   III. It is an alternative to cricothyrotomy
   IV. It may be used if orotracheal intubation is contraindicated

   a. I, III, IV  
   b. I, II, III  
   c. II, IV  
   d. II, III, IV

41. To perform retrograde intubation, the guide wire must be:
   a. Approximately 30 mm. in length  
   b. Approximately 70 cm. in length  
   c. Long enough to cover the distance between the nares and the sterno-clavicular angle  
   d. B and C

42. Which of the following is **FALSE** regarding non-tunneled central catheters?
   a. They are typically smaller bore catheters  
   b. They may have single or multiple lumens  
   c. They may be inserted centrally or peripherally  
   d. They are used for short term therapy

43. When a pulmonary artery catheter is wedged, what information is available?
   a. Right atrial blood flow dynamics  
   b. The cardiac output  
   c. Electrical activity in the heart  
   d. The left ventricular end-diastolic pressure

44. A Swan-Ganz catheter is in place. Which of the following would be an inappropriate action if no waveform shows on the monitor?
   a. Flush the catheter  
   b. Check the monitor calibration  
   c. Check the position of the stopcock  
   d. Check for loose connections

45. Which of the following is **CORRECT** regarding the nature of an abnormal SVR?
   a. 400 dynes/sec/cm$^5$  
   b. 1000 dynes/sec/cm$^5$  
   c. 1200 dynes/sec/cm$^5$  
   d. 1400 dynes/sec/cm$^5$

46. Which of the following is **CORRECT** regarding the purpose of zero referencing?
   a. It calibrates the transducer to known accurate mercury manometer  
   b. It balances the transducer to atmospheric pressure  
   c. It matches the dome of the transducer to the phlebostatic axis  
   d. It levels the transducer for accurate readings

47. Which of the following is **CORRECT** regarding the formula? 
   \[
   \text{Systolic} + 2 \text{ diastolic} = \text{ } \]

   a. RVC  
   b. MAP  
   c. Pulse pressure  
   d. Pulmonary capillary wedge pressure
48. Which of the following would result in low values on the monitor?
   I. Transducer above phlebostatic level
   II. Transducer below phlebostatic level
   III. Air bubbles or clot in the catheter
   IV. Catheter fling
   a. I, II
   b. II, III
   c. I, III
   d. II, IV

49. Which type of blood preparation would eliminate disease transmission and the possibility of transfusion reaction?
   a. Autologous
   b. Homologous
   c. Defibrinogenated
   d. Elimination of these risks is not possible

50. Which of the following is CORRECT regarding the major determinants of blood compatibility?
   a. ABO blood groups and the Rh system
   b. Age and sex of donor and recipient
   c. Hemoglobin and hematocrit
   d. Type of blood product

51. Which of the following is the best product to infuse in regard to reducing the risk of volume overload, when multiple units of blood are to be infused?
   a. Whole blood
   b. Immune globulins
   c. Specific factor therapy
   d. Packed red blood cells

52. Which of the following is CORRECT regarding the primary importance when preparing to administer blood?
   a. Documenting baseline vital signs
   b. Administering normal saline
   c. Asking a second professional to confirm blood compatibility
   d. Obtaining a written order for the transfusion

53. Hemolytic transfusions can occur as long as ____________ after transfusion:
   a. 2 hours
   b. 2 days
   c. 14 days
   d. 1 week

54. Which of the following statements is/are FALSE?
   I. The muscular layer of the heart is the endocardium
   II. The two-layered sac surrounding the heart is the pericardium
   III. The lining of the heart chambers is the epicardium
   IV. One of the three layers of tissue that form the wall of the heart is the endometrium
   a. I
   b. I, III
   c. III, IV
   d. I, III, IV
55. Which of the following is **CORRECT** in regard to the nervous system control of the heart?
   a. The sympathetic nervous system innervates the heart through the cardiac plexus
   b. The vagus nerve acts as a cardiac accelerator
   c. Norepinephrine is the chemical neurotransmitter for the parasympathetic nervous system
   d. The release of acetylcholine speeds the heart rate

56. Which of the following is **FALSE** in regard to the electrophysiology of the heart?
   a. The normal electrical state of cardiac cells is known as the action potential
   b. When myocardial cells are stimulated, there is a rapid influx of sodium ions
   c. When sodium ions rush into a cell, the cell becomes positively charged
   d. There are three types of cardiac cells: pacemaker, electrical conducting, and myocardial

57. Which of the following is **CORRECT** regarding lead placement for the 12 Lead ECG?
   a. Leads I, II, III are unipolar chest leads
   b. Leads AVR, AVL, AVF are unipolar limb leads
   c. Leads V1-V6 are bipolar chest leads
   d. B and C

58. Which of the following is **CORRECT** in regard to the components of the electrocardiogram?
   a. The ST segment reflects the time from the end of ventricular depolarization to the beginning of ventricular repolarization
   b. The shape and appearance of a waveform is referred to as the morphology
   c. The normal PR interval is 0.10-0.12 seconds
   d. The horizontal axis on ECG paper measures voltage, while the vertical axis measures time

59. A 59 year old male has been diagnosed with an inferior wall infarction. Which of the following statements is **CORRECT** regarding his 12 Lead interpretation?
   a. Indicative changes in Leads II, III, and AVF suggest the infarct is due to right coronary artery occlusion
   b. Indicative changes in leads viewing the septal, anterior, or lateral walls of the left ventricle suggest the infarct is due to left coronary artery occlusion
   c. Lead AVR is not critical to this diagnosis
   d. All of the above

60. Which of the following **IS NOT** a primary component of 12 Lead ECG interpretation?
   a. Assessing Q wave presence and morphology
   b. Calculation of the electrical axis of the T wave and P wave
   c. Inspection of P waves for hypertrophy
   d. Assessment of ST segment for elevation or depression

61. Which of the following is **CORRECT** in regard to aberrant conduction?
   a. It represents a normal finding
   b. It results in a supraventricular beat conducted through the ventricles in a delayed manner
   c. It is easy to distinguish PVCs with aberrancy from PVCs in Lead II
   d. It is an atrial conduction disturbance

62. Which of the following is **CORRECT** regarding the criteria used to diagnose bifascicular blocks?
   a. Widened QRS, “rabbit ears” in leads V1 and V2
   b. A negative deflection in Lead AVF
   c. Left axis deviation in Lead II, III
   d. A and B
63. Active myocardial injury can be indicated on an ECG by:
   a. A depressed ST segment
   b. An elevated ST segment
   c. The absence of a P wave
   d. The presence of U waves

64. Which of the following statements is CORRECT with regard to patients with an ICD?
   a. Have a one year mortality rate from SCD of only 10%
   b. Include those with recurrent inducible heart blocks refractory to medical therapy
   c. Can lead a normal life in regard to activity level or travel
   d. Should avoid hand held metal detectors

65. Which of the following represents information that should be obtained to help troubleshoot a pacemaker problem:
   a. Pacemaker rate, output, and sensitivity parameters
   b. The patient’s present underlying rhythm
   c. The type and position of the leads
   d. All of the above

66. Which of the following is FALSE with regard to the indications for Intra-Aortic Balloon Pump (IABP) counter-pulsation?
   a. Aortic valve incompetence
   b. Cardiogenic shock secondary to infarction
   c. Postoperative left ventricular failure
   d. Severe unstable angina

67. The IABP catheter is attached to a machine which:
   a. Removes gas from the aorta
   b. Displays the patient’s ECG and arterial waveform
   c. Has an electronic trigger mechanism for the balloon pump
   d. B and C

68. Place the following steps in appropriate order to assess proper balloon pump timing:
   I. Identify the dicrotic notch, and determine that inflation occurs at this point
   II. Deflate the balloon just before systole
   III. Compare the slopes of systolic upstroke and diastolic augmentation
   IV. Identify the beginning of systole and diastole on the arterial waveform
   V. Evaluate the systolic pressure peak to determine that it is lower than the unassisted systolic pressure peak
   a. I, IV, V, II, III
   b. III, IV, I, V, II
   c. IV, I, III, II, V
   d. V, III, IV, I, II

69. Which of the following is/are CORRECT with regard to a contraindication for the use of an IABP?
   a. Aortic aneurysm
   b. Ventricular septal defect following infarction
   c. Severe peripheral vascular occlusive disease
   d. A and C
70. Which of the following statements is/are **CORRECT** with regard to the proper positioning of the intra-aortic balloon?
   a. Is often achieved by using the Cramer technique for catheter placement
   b. Requires balloon placement beneath the renal arteries
   c. Requires balloon placement in the thoracic aorta, distal to the left subclavian artery
   d. B and C

71. Which of the following is a complication associated with IABPs?
   a. Arterial insufficiency
   b. Gas embolism
   c. Hypertension
   d. A & B

72. Which of the following is **CORRECT** in regard to the proper timing of the balloon pump?
   a. A patient with a heart rate of 80 bpm requires balloon inflation during diastole for 1450-1500 msec
   b. An arterial catheter or clear ECG waveform must be in place to monitor timing
   c. The dicrotic notch identifies the point of balloon deflation during systole
   d. The final step in timing is the identification of the beginning of systole and diastole on the arterial waveform

73. Haloperidol is indicated for:
   a. Substernal chest pain
   b. Combativeness
   c. Coma
   d. Depression

74. The mechanism of action for Benzodiazepines includes:
   a. Stimulating beta 1 and beta 2 adrenergic receptors
   b. Inhibiting pre and post synaptic dopamine
   c. Inhibiting postaglandin synthesis
   d. All of the above

75. Which of the following statements is **CORRECT** in regard to how Flumazenil works?
   a. Antagonizing Barbiturate and Opiate receptor sites
   b. Antagonizing Benzodiazepine receptor sites
   c. Increasing systemic vascular resistance
   d. Exerting a positive inotropic effect on the heart

76. Which of the following is/are true about Morphine?
   I. It is a central nervous system stimulant
   II. It binds with opiate receptors in the brain
   III. Nausea and vomiting frequently accompany administration
   IV. Its duration is 3-7 hours
   a. I, II
   b. II, III
   c. I, II, III
   d. II, III, IV
77. A nondepolarizing neuromuscular blocking agent used to maintain paralysis following intubation, and lasting approximately 30 minutes:
   a. Vecuronium
   b. Diazepam
   c. Succinylcholine
   d. Pancuronium

78. Which of the following is/are CORRECT in regard to the classification of Albumin and Dextran:
   a. Crystalloids
   b. Colloids
   c. Plasmanates
   d. All of the above

79. Which of the following is/are true regarding the use of Dextran:
   I. It is a glucose polymer in normal saline or D5W
   II. It has more colloid properties than Albumin
   III. It expands 3 ml per every 1 ml administered
   IV. It is administered at a rate of 2 gm/kg in the first 24 hours
   a. I
   b. II
   c. I, III
   d. I, IV

80. Which of the following IS NOT a vasopressor?
   a. Norepinephrine
   b. Epinephrine
   c. Dopamine
   d. Dobutamine

81. Which of the following is FALSE regarding the use of Dobutamine?
   a. It improves the force of cardiac contraction
   b. It increases cardiac output and urine output
   c. It can result in hypotension and tachycardia at 15-20 mcg/kg/min
   d. It has significant chronotropic effects

82. Which of the following is FALSE regarding the use of Albuterol?
   a. It is a very potent bronchodilator
   b. It can last for 4-8 hours
   c. It is administered via nebulizer at a dose of 0.25 mg
   d. It is commonly available in aerosol form

83. Which of following is CORRECT in regard to Anticholinergics?
   a. Are more potent than beta agonists
   b. Have a more rapid onset
   c. Have a longer duration
   d. Produce bronchodilation in cholinergic mediated bronchoconstriction

84. An example of a Class II Antiarrhythmics would be:
   a. Metoprolol
   b. Esmolol
   c. Amiodarone
   d. A & B
85. Which of the following is/are CORRECT in regard to the use of Amiodarone?
   a. It has a short half-life
   b. It can be used in lower doses to improve renal function
   c. It is administered in an initial dose of 300mg for cardiac arrest due to shock resistant V-Fib
   d. All of the above

86. Which of the following is/are CORRECT regarding the use of beta blockers?
   I. The higher the dose, the more they lose selectivity
   II. Their adverse effects include fatigue and malaise
   III. They are indicated for hypertension
   IV. caution should be exercised when giving to CHF patients
   a. I, II
   b. II, IV
   c. I, III, IV
   d. I, II, III, IV

87. Similarities between Streptokinase and TPA include:
   a. Both convert plasminogen to plasmin
   b. Both cost approximately the same
   c. Both have the same half life
   d. A and C

88. You need to initiate a drip of 0.05 mcg/kg/min of Norepinephrine to a 140 pound adult female in distributive shock. You have a 250 ml bag of normal saline and a 8mg vial of Norepinephrine. What will be the concentration of the Norepinephrine when mixed in the bag?
   a. 18 mcg/ml
   b. 32 mcg/ml
   c. 43 mcg/ml
   d. 44 mcg/ml

89. What is the actual dose of Norepinephrine to be administered to the patient?
   a. 4.0 mcg/min
   b. 3.2 mcg/min
   c. 3.8 mcg/min
   d. 5.0 mcg/min

90. How many milliliters/hour of Norepinephrine must you administer?
   a. 5.5 ml/hr
   b. 6.4 ml/hr
   c. 5.9 ml/hr
   d. 0.5 ml/hr

91. Levophed mechanism of action:
   a. positive inotrope with little chronotropic effect; direct vasodilator (decreases both preload and afterload)
   b. Strong beta1- and alpha-adrenergic effects and moderate beta2 effects, which increase cardiac output and heart rate, decrease renal perfusion and PVR
   c. Strong alpha effects resulting in increased peripheral vascular resistance and blood pressure; decreases cardiac output and renal perfusion
   d. Endogenous catecholamine
92. You must administer a Dopamine infusion at 10 mcg/kg/min to a 176 pound male with hypotension associated with cardiogenic shock. You have 200 mg of Dopamine, a 250 ml bag of D5W, and a 60 gtts/cc administration set. How many drops per minute should you infuse?
   a. 15
   b. 30
   c. 45
   d. 60

93. A patient presenting with profuse hematemesis with frank red blood, and a history of significant alcohol abuse is/are mostly likely caused by:
   a. Kidney stones
   b. Esophageal varice
   c. Gastric hemorrhage
   d. B and C

94. Which of the following IS NOT an abnormal finding in the abdominal assessment:
   a. Rebound tenderness
   b. Shoulder discomfort
   c. Bowel sounds heard approximately every 15-30 seconds
   d. Consistent rigidity and guarding of the abdominal wall

95. A thin female patient is supine on the cot during your assessment. You palpate a strong pulse at her umbilicus. This is likely due to:
   a. The normal condition of her abdominal aorta
   b. An abdominal aortic aneurysm
   c. An ectopic pregnancy
   d. A gross anatomic abnormality

96. You have just received a patient with a nasogastric tube already in place. When you inject air into the tube and auscultate the epigastrium, nothing is heard. Your next action is to:
   a. Remove the tube and reattempt placement
   b. Transport the patient; the tube is adequate
   c. Place the patient in the lateral recumbent position for better auscultation
   d. Place an additional orogastric tube in the patient prior to transport

97. Which of the following actions can help prevent diarrhea and other gastrointestinal complications associated with enteral feedings?
   a. Increasing the rate of feedings
   b. Decreasing the amount of water being added to the nutritional solution
   c. Administering the feeding as a bolus every 2 hours
   d. Changing the administration set every 24 hours

98. Which of the following statements is/are CORRECT with regard to the purpose of a Foley catheter?
   a. Observe the condition of urine for blood and other abnormal contents
   b. Allow urine to freely exit the body
   c. Closely monitor urine volume production
   d. All of the above

99. No urine is found in the Foley catheter after placement. This could be caused by:
   a. Incorrect placement of the catheter
   b. An empty urinary bladder
   c. The catheter clamp remains in place
   d. All of the above
100. Following placement of a Foley catheter, the patient develops an infection. Which of the following is not a sign or symptom of that infection?
   a. WBCs in the urine culture
   b. Clear urine
   c. Fever
   d. Altered mental status

101. A colostomy is a surgical procedure likely required for patients with:
   a. Obstruction of the small intestine
   b. Rectal cancer
   c. Blood accumulation in the stomach
   d. All of the above

102. Which of the following will be altered by renal failure?
   a. pH level
   b. Blood pressure
   c. Hematocrit
   d. All of the above

103. Which of the following IS NOT a risk factor for a patient undergoing peritoneal dialysis?
   a. Fistula graft rejection
   b. Peritonitis
   c. Decreased bowel sounds
   d. Elevated white blood cell count

104. Which of the following is/are a cause of hypotension during or following dialysis?
   a. Disequilibrium syndrome
   b. Anxiety about the procedure
   c. Excessive filtration of the blood
   d. Infectious processes associated with the procedure

105. An inappropriate motor response in a comatose patient characterized by flexion of the arms, wrists, and fingers, adduction of the upper extremities, and extension, medial rotation and plantar flexion of the lower extremities is known as:
   a. Decerebrate posture
   b. Dysphasia posture
   c. Decorticate posture
   d. Fasciculation posture

106. When documenting deep muscle reflex response, a grade of ____ is used to indicate a normal or expected response.
   a. 2
   b. 3
   c. 4
   d. 5

107. The intracranial volume-pressure curve demonstrates the relationship between:
   a. Changes in blood pressure and intracranial pressure
   b. Changes in brain mass and intracranial pressure
   c. Changes in volume and intercranial pressure
   d. Changes in volume and intracranial pressure
108. Which of the following is **FALSE** regarding the advantages of using an interventricular catheter (IVC)?
   a. Ability to drain CSF to lower ICP  
   b. Reduced risk of infection  
   c. Increased accuracy in ICP monitoring  
   d. Reliability

109. A 42 year old patient with serious head trauma has an intracranial pressure of 19 mmHg. This indicates that his ICP is:
   a. Normal  
   b. Slightly elevated  
   c. Moderately elevated  
   d. Severely elevated

110. Mean arterial pressure (MAP), minus intracranial pressure (ICP), equals ______:
   a. Coronary artery pressure (CAP)  
   b. Central venous perfusion pressure (CVPP)  
   c. Cerebral perfusion pressure (CPP)  
   d. Cervical spinal fluid pressure (CSFP)

111. Which of the following drugs will cause an increase in ICP?
   I. Ketamine  
   II. Diazepam  
   III. Nitroprusside  
   IV. Mannitol  
   V. Oxygen
   a. I, III, IV, V  
   b. I, II, III  
   c. II, III, IV  
   d. I, III, V

112. In order to decrease ICP, the patient's head should be:
   a. Aligned with neck  
   b. Hyperextended  
   c. Hyperflexed  
   d. Rotated to the left

113. Which of the following is **CORRECT** with regard to the amount of circulating blood volume of a neonate?
   a. 30-40 cc/kg  
   b. 70-75 cc/kg  
   c. 50-60 cc/kg  
   d. 85-90 cc/kg

114. When comparing the adult and pediatric respiratory systems, which of the following is **CORRECT** with regard to the pediatric patient?
   a. Children are mouth breathers  
   b. The diaphragm is the chief muscle of respiration  
   c. Intercostals & accessory muscles are strong  
   d. Pediatrics have smaller tongues
115. When administering medications via the ETT to neonates and pediatrics, which of the following is given at 2-3 times the usual dose?
   a. Epinephrine
   b. Atropine
   c. Lidocaine
   d. Narcan

116. You are preparing to perform RSI on a 6 year old child with multiple system trauma. Of the following medications used for RSI which has the CORRECT dosage listed:
   a. Flumazenil 0.05-0.1 mg/kg IV/IO/IM
   b. Etomidate 2-6 mg/kg IV/IO
   c. Vecuronium 0.01-0.5 mg/kg IV/IO
   d. Succinylcholine 1-4 mg/kg IV/IO

117. In a pediatric patient with a fever, the heart rate increases ________ BPM for every 1°C above 37°C:
   a. 5
   b. 20
   c. 10
   d. 15

118. An early sign of shock in a pediatric patient is:
   a. Prolonged capillary
   b. Bradycardia
   c. Decreased pulse pressure
   d. Hypotension

119. The antihypertensive medication of choice for managing severe Pre-eclampsia is:
   a. Hydralazine
   b. Labetalol
   c. Magnesium Sulfate
   d. Nifedipine

120. In regard to third trimester bleeding which of the following is/are CORRECT?
   a. Dopamine given in low doses will preserve placental blood flow
   b. The dose for dobutamine is 5-15 mgm/kg/min
   c. Hemodynamic compromise is common
   d. All of the above

121. Which of the following is CORRECT with regard to pre-term labor?
   a. Magnesium sulfate is not recommended
   b. Is defined as uterine contractions without cervical change
   c. Is defined as less than 37 weeks gestation
   d. Tertbutaline is administered at 0.25 mg SQ every 60 minutes

122. Treatment of a prolapsed umbilical cord includes the following:
   a. Reinserting the cord in the vagina
   b. Changing maternal position to knee-chest
   c. Clamping and cutting the cord
   d. Pulling on the cord to speed up delivery
123. Which of the following differentiates Pre-Eclampsia from Eclampsia?
   a. Grand Mal Seizures
   b. Hypertension
   c. Anxiety
   d. Photophobia

124. Which of the following can cause fetal tachycardia?
   I. Parasympatholytic drugs
   II. Sympathomimetic drugs
   III. Chorioamnionitis
   IV. Maternal fever
   V. Fetal hypoxia
   a. I, II, V
   b. II and IV
   c. I and II
   d. All of the above

125. A 25 year old male has been burned on the anterior portion of his left arm from the elbow to the wrist, on one half of his chest and on the left side of his face. Based on the “Rule of Nines” what is the percentage of total body surface area burned?
   a. 30%
   b. 18%
   c. 25%
   d. 20%

126. When transporting a patient with a circumferential burn of the extremity, the Critical Care Professional must be concerned with which of the following:
   a. The need for an escharotomy
   b. Compartment syndrome
   c. The need for a fasciotomy
   d. All of the above

127. Which of the following chemicals would produce the most serious burns?
   a. An alkali solution
   b. Acetic acid
   c. Dry lye
   d. Diesel fuel

128. Another method for measuring the percent of total body surface area burned is the:
   a. Rule of the Palm
   b. Parkland Formula
   c. Injury Severity Scale
   d. Ashford Formula
129. Severity of a burn is determined by which of the following:
   I. Depth
   II. Age
   III. The color of the flame
   IV. History
   V. Method used to extinguish the flame
   a. I, II, III and V
   b. I, II and III
   c. I, II and IV
   d. All of the above

130. Which of the following patients meets the criteria for transport to a burn center?
   a. A partial thickness burn of 10%
   b. Superficial burns of > 50%
   c. Partial and full thickness burns of > 20% BSA
   d. All of the above