



**AMREF INTERNATIONAL UNIVERSITY  
SCHOOL OF MEDICAL SCIENCES  
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES  
END OF SEMESTER EXAMINATION  
HIGHER DIPLOMA IN CRITICAL CARE NURSING**

**COURSE CODE & TITLE: ACN 120, ESSENTIALS OF CRITICAL CARE NURSING**

**DATE.....**

**DURATION.....**

**START:.....**

**FINISH.....**

**INSTRUCTIONS**

1. This exam is out of 160 marks
2. This Examination comprises ONE Sections. Section I: Multiple Answer Questions. (160 marks)
3. Answer ALL Questions.
4. Do Not write anything on the question paper

**MULTIPLE CHOICE QUESTION**

1. The following best indicates adequate oxygenation in a critically ill patient;-
  - A. SpO<sub>2</sub> of 89%
  - B. PaO<sub>2</sub> of 60 mmHg
  - C. PaO<sub>2</sub> of 85 mmHg
  - D. Respiratory rate of 10/min
2. The most definitive diagnostic test for pulmonary embolism is:
  - A. Chest X-ray
  - B. CT pulmonary angiography
  - C. D-dimer test
  - D. ECG
3. A high-pitched inspiratory sound heard over the trachea indicates:
  - A. Crackles

- B. Rhonchi
  - C. Stridor
  - D. Wheezing
4. The condition that presents with a silent chest and cyanosis is;-
- A. Mild asthma
  - B. Bronchitis
  - C. Severe airway obstruction
  - D. COPD
5. Arterial Blood Gas (ABG) values of pH 7.30, PaCO<sub>2</sub> 55 mmHg, HCO<sub>3</sub><sup>-</sup> 24 mEq/L indicate:
- A. Metabolic acidosis
  - B. Respiratory acidosis
  - C. Respiratory alkalosis
  - D. Metabolic alkalosis
6. The parameter used to assess ventilatory status on ABG is;-
- A. PaCO<sub>2</sub>
  - B. HCO<sub>3</sub><sup>-</sup>
  - C. PaO<sub>2</sub>
  - D. SaO<sub>2</sub>
7. The hallmark feature of Acute Respiratory Distress Syndrome (ARDS) is:
- A. Hemoptysis
  - B. Hypoxemia refractory to oxygen therapy
  - C. Productive cough
  - D. Cyanosis relieved by oxygen
8. The following condition is associated with barrel chest;-
- A. Pleural effusion
  - B. Acute asthma
  - C. Emphysema
  - D. Pneumothorax
9. Clubbing of fingers is most commonly associated with:
- A. Pneumonia
  - B. Lung cancer
  - C. Asthma
  - D. Bronchitis
10. In tuberculosis treatment, the drug responsible for red-orange discoloration of body fluids is:
- A. Rifampin
  - B. Isoniazid
  - C. Ethambutol
  - D. Pyrazinamide
11. The condition mostly associated with pursed-lip breathing in patients is;
- A. Pneumonia
  - B. Asthma

- C. COPD
  - D. Pulmonary fibrosis
12. The primary goal of asthma management is to:
- A. Eliminate allergens
  - B. Improve airway inflammation and bronchoconstriction
  - C. Increase oxygenation
  - D. Prevent coughing
13. Tactile fremitus is decreased in;-
- A. Pneumonia
  - B. Pleural effusion
  - C. Lung consolidation
  - D. Lung tumor
14. A complication of mechanical ventilation with high PEEP includes:
- A. Atelectasis
  - B. Pulmonary edema
  - C. Pneumothorax
  - D. Hypovolemia
15. Weaning from mechanical ventilation is contraindicated when:
- A.  $FiO_2 < 0.4$
  - B. Patient has strong respiratory effort
  - C.  $pH < 7.25$
  - D.  $RSBI < 105$
16. A patient on a ventilator with high-pressure alarms is likely experiencing:
- A. Cuff leak
  - B. Disconnection
  - C. Kinked tube or secretions
  - D. Normal functioning
17. The ventilator mode that provides mandatory breaths and allows spontaneous breathing in between is;-
- A. SIMV
  - B. Assist-Control
  - C. CPAP
  - D. BiPAP
18. The key nursing intervention during endotracheal suctioning is to:
- A. Suction continuously while inserting
  - B. Use saline to loosen secretions always
  - C. Preoxygenate before and after suctioning
  - D. Limit suctioning to 30 seconds
19. Positive pressure ventilation improves oxygenation primarily by:
- A. Increasing cardiac output
  - B. Increasing venous return
  - C. Recruiting collapsed alveoli
  - D. Reducing respiratory rate

20. The purpose of a cuff on an endotracheal tube is to:
- A. Allow spontaneous speech
  - B. Prevent aspiration and air leaks
  - C. Promote swallowing
  - D. Aid humidification
21. First-line treatment in acute anaphylactic airway compromise includes:
- A. Albuterol
  - B. Salbutamol
  - C. Epinephrine
  - D. Hydrocortisone
22. Signs of impending respiratory failure include:
- A. Tachypnea, confusion, and accessory muscle use
  - B. Cough, low-grade fever, and nasal flaring
  - C. Wheezing and chest tightness only
  - D. Tachycardia without hypoxia
23. The initial step in managing a suspected tension pneumothorax is:
- A. Chest X-ray
  - B. High-flow oxygen
  - C. Needle decompression
  - D. Chest physiotherapy
24. The following ABG values is consistent with respiratory alkalosis:-
- A. pH 7.52, PaCO<sub>2</sub> 28 mmHg
  - B. pH 7.31, PaCO<sub>2</sub> 50 mmHg
  - C. pH 7.25, PaCO<sub>2</sub> 20 mmHg
  - D. pH 7.48, PaCO<sub>2</sub> 48 mmHg
25. Flail chest is best described as:
- A. A lung filled with air
  - B. A paradoxical movement of a rib segment
  - C. A collection of fluid in the lungs
  - D. A rigid chest wall due to fibrosis
26. The following is a long-term complication of COPD;
- A. Pulmonary embolism
  - B. Cor pulmonale
  - C. Pleural effusion
  - D. Tuberculosis
27. Home oxygen therapy is indicated for COPD patients when:
- A. PaO<sub>2</sub> is < 80 mmHg
  - B. SaO<sub>2</sub> is < 94%
  - C. PaO<sub>2</sub> is < 55 mmHg or SaO<sub>2</sub> < 88%
  - D. Only during sleep
28. A nursing priority for a patient with chest tube and underwater seal drain includes:
- A. Keeping the drain at chest level
  - B. Clamping the tube during ambulation

- C. Checking for continuous bubbling in water seal  
D. Removing the tube once the lung inflates
29. The breathing technique that helps prevent alveolar collapse is:-  
A. Deep sighing  
B. Pursed-lip breathing  
C. Holding breath  
D. Forced expiration
30. A common symptom of sleep apnea is:  
A. Nocturia  
B. Headache  
C. Daytime sleepiness  
D. Chest pain
31. Albuterol acts primarily as a:  
A. Long-acting beta agonist  
B. Beta-2 agonist for bronchodilation  
C. Steroid anti-inflammatory  
D. Leukotriene modifier
32. The drug commonly used as prophylaxis in asthma is:-  
A. Albuterol  
B. Montelukast  
C. Ipratropium  
D. Prednisone
33. Ipratropium is contraindicated in patients with:  
A. Glaucoma  
B. Asthma  
C. COPD  
D. Hypertension
34. The respiratory medication is associated with oral thrush:-  
A. Beta-agonists  
B. Inhaled corticosteroids  
C. Leukotriene modifiers  
D. Antihistamines
35. Systemic corticosteroids in respiratory care are primarily used for:  
A. Antiviral effects  
B. Long-term bronchodilation  
C. Reducing airway inflammation  
D. Sedation
36. A patient with newly diagnosed asthma should be taught to:  
A. Use a rescue inhaler only at night  
B. Avoid peak flow meters  
C. Identify triggers and follow an action plan  
D. Take steroids during attacks only
37. The best indicator of treatment response in acute asthma is:

- A. Resolution of cough
  - B. Peak expiratory flow rate
  - C. Temperature normalization
  - D. Decreased respiratory rate
38. The position that best facilitates lung expansion in dyspneic patients is;-
- A. Supine
  - B. High Fowler's
  - C. Prone
  - D. Lateral
39. Smoking cessation is especially important in COPD to:
- A. Reduce weight
  - B. Improve mood
  - C. Slow disease progression
  - D. Increase appetite
40. Before administering nebulized bronchodilator, the nurse should:
- A. Ask the patient to lie down
  - B. Ensure humidification
  - C. Assess lung sounds and respiratory rate
  - D. Give corticosteroids first
41. The critical care nurse understands that priority treatment of a patient with bradyarrhythmia of Mobitz II will be;
- A. Atropine 1mg i.v to a maximum of 3mg
  - B. Epinephrine 1mg repeated dosage
  - C. Transcutaneous pacing using pads
  - D. Dobutamine 20mcg iv infusion
42. The part of the primitive heart tube that gives rise to the pulmonary artery and the aorta is:
- A. Bulbus cordis
  - B. Sinus venosus
  - C. Primitive ventricle
  - D. Truncus arteriosus
43. The atrial kick accounts for the following amount of blood flowing into the ventricles,
- A. 30%
  - B. 70%
  - C. 80%
  - D. 20%

44. The following cation is responsible for the inherent strength of the myocardium during the action potential;
- A. Potassium
  - B. Calcium
  - C. Sodium
  - D. Magnesium
45. Which of the following factors directly decreases ejection fraction:
- A. Increased contractility
  - B. Decreased afterload
  - C. Increased preload
  - D. Increased end-systolic volume
46. Which of the following best represents the physiological basis of the Frank-Starling law:
- A. Increased calcium influx during depolarization due to increased venous return
  - B. Optimal overlap of actin and myosin filaments when muscle fibers are stretched
  - C. Enhanced sympathetic stimulation because of increased venous return
  - D. Reduced end-systolic volume
47. The objective of zeroing in an arterial line system is
- A. Correct of atmospheric pressure
  - B. Correct for the hydrostatic pressure
  - C. To reduce preload
  - D. To increase after
48. A damped waveform on the arterial trace usually indicates:
- A. Air bubbles in the line
  - B. Increased cardiac output
  - C. Tachycardia
  - D. Loose connections in the lines
49. The 'c' wave in the CVP waveform is caused by:
- A. Closure of the tricuspid valve and bulging into the right atrium
  - B. Contraction of the right atrium outward flow of blood out of the heart
  - C. Rapid filling of the ventricle after opening atrioventricular valves

D. Opening of the tricuspid valve

50. A sudden increase in blood pressure in the aorta or carotid artery generally causes:

- A. A decrease in force of ventricular contraction
- B. An increase in the heart rate
- C. An increase in the systematic vascular resistance
- D. An increase in force of ventricular contraction

51. The Allen's test is performed before radial artery cannulation to:

- A. Confirm collateral circulation
- B. Confirm venous return
- C. Measure systolic pressure
- D. Check capillary refill on the hand

52. What is the most common symptom of myocardial ischemia and infarction:

- A. Jaw or neck pain
- B. Discomfort along the superior thoracic vertebral region
- C. Retrosternal discomfort
- D. Radiating pain in one of the upper limbs

53. Beck's triad, which is associated with cardiac tamponade, consists of distended neck veins, along with the following symptoms:

- A. Tachycardia and a bounding pulse
- B. Bradycardia and a bounding pulse
- C. Oliguria and distant heart sound
- D. Hypotension and distant/muffled heart sound

54. Which of the following medications are used in the primary treatment of acute coronary syndrome:

- A. Heparin, nitroglycerin, morphine
- B. Simvastatin, aspirin, ACE inhibitors
- C. Aspirin, morphine, nitroglycerin
- D. Morphine, ACE inhibitors, fibrinolytics

55. The sequence of ECG changes in acute myocardial infarction is usually:

- A. Q wave → ST elevation → T inversion

- B. ST elevation → T inversion → Q wave formation
- C. T inversion → ST elevation → Q wave
- D. ST depression → ST elevation → Q wave

56. A nurse's priority in managing a patient with rheumatic heart disease is to:

- A. Promote rest during the acute phase
- B. Encourage routine dental hygiene
- C. monitor antibiotic levels
- D. Avoid prophylactic therapy

57. The most characteristic lesion of acute rheumatic fever in the heart is:

- A. Aschoff body
- B. Janeway lesion
- C. Osler's node
- D. Vegetation on valve

58. A patient with Stage C, Class II heart failure would likely present with:

- A. Dyspnea on exertion, mild limitation of activity
- B. No limitation of activity
- C. Symptoms at rest
- D. Structural damage but asymptomatic

59. A patient with hypertrophic cardiomyopathy may present with:

- A. Syncope, dyspnea, and sudden cardiac death
- B. Edema and ascites only
- C. Bradycardia and hypotension
- D. Chest wall pain

60. Which of the following is a Class IA antiarrhythmic:

- A. Lidocaine
- B. Quinidine
- C. Amiodarone
- D. Verapamil

61. A common nursing precaution when administering beta-blockers is:

- A. Check pulse and blood pressure before giving
- B. Administer with high-sodium foods

- C. Encourage sudden withdrawal
- D. Give to patients with severe asthma

62. The main action of diltiazem is to:

- A. Prolong depolarization
- B. Slow AV node conduction
- C. Increase heart rate
- D. Increase myocardial contractility

63. Dopamine has dose-dependent actions. At low doses, it:

- A. Causes renal vasodilation
- B. Causes renal vasoconstriction
- C. Decreases renal perfusion
- D. Increases afterload only

64. The unit intensivist prescribed 7mcg/min of norepinephrine infusion. If 4mgs of the drug is reconstituted in 50cc of normal saline, the infusion rate will be:

- A. 367mls/hr
- B. 5.25mls/hr
- C. 2.5mls/hr
- D. 184mls/h

65. Phosphodiesterase inhibitors differ from catecholamines because they:

- A. Do not depend on  $\beta$ -receptor stimulation
- B. Work at slower rate
- C. Have no effect on contractility of the myocardium
- D. Decrease cardiac output

66. The primary laboratory test used to monitor unfractionated heparin therapy is:

- A. checking values of Prothrombin time (PT)
- B. Activated partial thromboplastin time (aPTT)
- C. International normalization ratio (INR)
- D. Bleeding time in second

67. The antidote for thrombolytic overdose is:

- A. Vitamin K

- B. Protamine sulfate
  - C. Aminocaproic acid
  - D. Heparin
68. Hydrochlorothiazide lowers blood pressure by:
- A. Vasoconstriction
  - B. Increasing sodium and water excretion
  - C. Increasing heart rate
  - D. Suppressing renin release
69. A common side effect of Enalapril is:
- A. Bradycardia
  - B. Dry cough
  - C. Constipation
  - D. Hypoglycemia
70. The following drug is contraindicated in Asthma,
- A. Propranolol
  - B. Atenolol
  - C. Metoprolol
  - D. bisoprolol
71. A patient diagnosed as having an inferolateral myocardial infarction will have ST segment changes in the following contiguous leads:
- A. 11, 111, aVF, V1
  - B. 1, V4, V5, V6
  - C. V3, V4, V5, 111
  - D. aVL, V6, 111, 11
72. The auscultation point for Aortic valve closure is:
- A. 5<sup>th</sup> intercostal space left of the sternum, mid clavicular line
  - B. 4<sup>th</sup> intercostal space left of the sternal border
  - C. 2<sup>nd</sup> intercostal space, left sternal border
  - D. 2<sup>nd</sup> intercostal space, right sternal border
73. In lead II, the positive electrode is placed on the:
- A. left leg

- B. right leg
- C. right arm
- D. left wrist

74. The nurse interprets the following rhythm to mean:



- A. Mobitz type I; Atropine 1mg
- B. Mobitz type I; Transcutaneous pacing
- C. Mobitz type II; Atropine 1mg
- D. Mobitz type II; Transcutaneous pacing

75. The nurse interprets the following rhythm to mean:



- A. Premature atrial contraction
- B. Premature ventricle contraction
- C. Third degree av block
- D. Bundle branch block

76. The standard limb leads (I, II, III) record electrical activity in which plane:

- A. Horizontal plane
- B. Frontal plane
- C. Sagittal plane
- D. Coronal plane

77. If Lead I is positive and aVF is negative, the likely finding is:

- A. Normal axis
- B. Left axis deviation
- C. Right axis deviation
- D. Indeterminate axis

78. Adenosine is contraindicated in treatment of the following dysrhythmia

- A. Atrial fibrillation
  - B. Atrial flutter
  - C. Supraventricular tachycardia
  - D. Monomorphic ventricular tachycardia
79. DDD pacemaker pacing spikes can appear:
- A. Before P waves
  - B. Before QRS complex
  - C. Before both P and QRS
  - D. Randomly
80. Chest tube drainage after CABG should normally be:
- A. <50 mL/hr
  - B. 50–150 mL/hr
  - C. >300 mL/hr
  - D. Absent completely
81. The first action when a patient is unresponsive in the ICU is:
- A. Attach a defibrillator
  - B. Start chest compressions
  - C. Check responsiveness and call for help
  - D. Administer epinephrine
82. The recommended chest compression rate during adult cardiac arrest is:
- A. 80–100/min
  - B. 100–120/min
  - C. 120–140/min
  - D. 140–160/min
83. The compression-to-ventilation ratio for a single rescuer performing adult CPR is:
- A. 15:2
  - B. 30:2
  - C. 5:1
  - D. 20:2
84. A cardiac rhythm that requires immediate defibrillation is:
- A. Asystole
  - B. Pulseless electrical activity
  - C. Ventricular fibrillation
  - D. Bradycardia
85. An important step that improves survival during cardiac arrest is (Select all that Apply) :
- A. Early recognition
  - B. Rapid defibrillation
  - C. Post-resuscitation care
  - D. Oxygen therapy
86. The preferred airway device during adult cardiac arrest is:
- A. Bag-mask ventilation
  - B. Endotracheal intubation
  - C. Nasal cannula
  - D. Non-rebreather mask

87. Correct placement of an endotracheal tube is confirmed by:
- A. Chest rise and fall
  - B. Breath sounds
  - C. End-tidal CO<sub>2</sub> detection
  - D. Pulse check
88. The maximum duration to pause for high-quality chest compressions is:
- A. 10 seconds
  - B. 15 seconds
  - C. 20 seconds
  - D. 30 seconds
89. The recommended tidal volume for post-cardiac arrest mechanical ventilation is:
- A. 4–6 mL/kg
  - B. 6–8 mL/kg
  - C. 8–10 mL/kg
  - D. 10–12 mL/kg
90. The initial airway approach in pediatric cardiac arrest is:
- A. Bag-mask ventilation
  - B. Endotracheal tube
  - C. Laryngeal mask airway
  - D. Nasopharyngeal airway
91. The first intervention for pulseless ventricular tachycardia is:
- A. CPR only
  - B. Defibrillation
  - C. Epinephrine
  - D. Amiodarone
92. The recommended first biphasic shock energy in adult VF/pulseless VT is:
- A. 100 J
  - B. 200 J
  - C. 300 J
  - D. 360 J
93. The initial defibrillation energy for pediatric VF/VT is:
- A. 2 J/kg
  - B. 4 J/kg
  - C. 6 J/kg
  - D. 10 J/kg
94. A shockable rhythm for immediate defibrillation is:
- A. Ventricular fibrillation
  - B. Asystole
  - C. Pulseless electrical activity
  - D. Bradycardia
95. The immediate action after delivering a defibrillation shock is:
- A. Resume CPR immediately
  - B. Administer amiodarone
  - C. Recheck the pulse
  - D. Increase oxygen flow

96. The first-line drug for VF/pulseless VT cardiac arrest is:
- A. Epinephrine
  - B. Atropine
  - C. Amiodarone
  - D. Lidocaine
97. The interval for repeated epinephrine doses during cardiac arrest is:
- A. 1 min
  - B. 3–5 min
  - C. 5–10 min
  - D. 10 min
98. The drug used for refractory pulseless VF/VT is:
- A. Amiodarone
  - B. Atropine
  - C. Dopamine
  - D. Lidocaine
99. The adult dose of amiodarone in cardiac arrest is:
- A. 150 mg IV/IO
  - B. 300 mg IV/IO
  - C. 500 mg IV/IO
  - D. 1 mg/kg
100. Treatments that support ROSC include:
- A. Epinephrine
  - B. Oxygen
  - C. CPR
  - D. Atropine
101. The main goal of Targeted Temperature Management after cardiac arrest is:
- A. Preserve neurological function
  - B. Reduce fever
  - C. Prevent arrhythmias
  - D. Increase cardiac output
102. The target blood pressure after ROSC is:
- A. SBP > 90 mmHg
  - B. MAP 60–70 mmHg
  - C. DBP > 60 mmHg
  - D. SBP > 70 mmHg
103. The oxygen saturation target post-ROSC is:
- A. 94–98%
  - B. 80–90%
  - C. 100%
  - D. 85–95%
104. The critical investigation immediately after ROSC is:
- A. ABG
  - B. ECG
  - C. Blood sugar
  - D. Chest X-ray

105. Hemodynamic monitoring post-resuscitation should include:
- A. MAP
  - B. Heart rate
  - C. Urine output
  - D. Blood pressure
106. The defibrillation strategy for hypothermia (<30°C) includes:
- A. Increase shock energy
  - B. Maintain normal energy
  - C. Only CPR
  - D. Immediate drug administration
107. The recommended position for a pregnant patient during cardiac arrest is:
- A. Left lateral tilt
  - B. Supine
  - C. Prone
  - D. Trendelenburg
108. A reversible cause that should be addressed during ALS is:
- A. Hypoxia
  - B. Hypovolemia
  - C. Hyperkalemia
  - D. Hypothyroidism
109. The compression-to-ventilation ratio with an advanced airway is:
- A. Continuous compressions with 1 breath every 6 seconds
  - B. 30:2
  - C. 15:2
  - D. 5:1
110. Monitoring that guides post-arrest recovery includes (Select all that Apply):
- A. Continuous ECG
  - B. Pulse oximetry
  - C. Capnography
  - D. Blood pressure
111. The most common initial rhythm in pediatric cardiac arrest is:
- A. Asystole
  - B. VF
  - C. VT
  - D. SVT
112. The recommended epinephrine dose for pediatric cardiac arrest is:
- A. 0.01 mg/kg IV/IO
  - B. 0.1 mg/kg IV/IO
  - C. 1 mg/kg IV/IO
  - D. 0.001 mg/kg IV/IO
113. The first shock energy for a pediatric shockable rhythm is:
- A. 2 J/kg
  - B. 1 J/kg
  - C. 4 J/kg
  - D. 5 J/kg

114. Pediatric bradycardia with poor perfusion is managed with:
- A. Epinephrine
  - B. Atropine
  - C. Amiodarone
  - D. Dopamine
115. The airway option after failed bag-mask ventilation in a child is:
- A. Endotracheal tube
  - B. Laryngeal mask airway
  - C. Nasopharyngeal airway
  - D. Oropharyngeal airwar
116. Capnography during ALS helps to assess (Select all that Apply):
- A. Airway placement
  - B. Quality of compressions
  - C. Return of spontaneous circulation
  - D. Heart rate
117. An end-tidal CO<sub>2</sub> below 10 mmHg during CPR indicates:
- A. Poor compressions
  - B. High-quality CPR
  - C. Hyperventilation
  - D. Adequate oxygenation
118. The correct timing for defibrillation delivery is:
- A. Immediately after pausing compressions
  - B. During compressions
  - C. After 5 minutes of CPR
  - D. Only if pulse returns
119. The recommended chest compression depth for adults is:
- A. 5–6 cm
  - B. 2–2.4 cm
  - C. 4–5 cm
  - D. 6–7 cm
120. The factor with the greatest impact on survival from cardiac arrest is:
- A. Time to high-quality CPR and defibrillation
  - B. Number of shocks delivered
  - C. Epinephrine dose
  - D. Oxygen concentration
121. The central nervous system consists of the:
- A. Brain and spinal cord
  - B. Brain and peripheral nerves
  - C. Cranial nerves only
  - D. Spinal nerves only
122. The primary functional unit of the nervous system is the:
- A. Myelin sheath
  - B. Neuron

- C. Axon
  - D. Synapse
123. The part of the brain responsible for coordination and balance is the:
- A. Cerebrum
  - B. Cerebellum
  - C. Brainstem
  - D. Thalamus
124. A key component of neurological patient history includes:
- A. Gastrointestinal habits
  - B. Sleep patterns
  - C. Level of consciousness changes
  - D. Skin condition
125. The Glasgow Coma Scale assesses:
- A. Memory and judgment
  - B. Motor, verbal, and eye response
  - C. Vision and hearing
  - D. Reflexes
126. A GCS score of 8 or below indicates:
- A. Normal neurological status
  - B. Mild impairment
  - C. Coma/severe injury
  - D. Brain death
127. The FOUR Score assesses all except:
- A. Brainstem reflexes
  - B. Respiration
  - C. Motor response
  - D. Pupillary light response
  - E. (None – all are included)
128. CT scan is particularly useful for detecting:
- A. Migraine
  - B. Acute hemorrhage
  - C. Multiple sclerosis
  - D. Functional brain abnormalities
129. EEG is primarily used to evaluate:
- A. Brain tumors
  - B. Seizure activity
  - C. Skull fractures
  - D. Stroke perfusion
130. Nerve conduction studies evaluate:
- A. Cerebral perfusion
  - B. Peripheral nerve function
  - C. Brain swelling
  - D. Spinal cord integrity
131. EMG helps assess disorders of:
- A. Cerebral cortex
  - B. Muscle and motor neurons

- C. Spinal fluid pressure
  - D. Cranial nerves only
132. A lumbar puncture is used to obtain:
- A. Blood sample
  - B. CSF
  - C. Lymphatic fluid
  - D. Bone marrow
133. Increased intracranial pressure is commonly caused by:
- A. Hyperthermia
  - B. Hyponatremia
  - C. Head injury
  - D. Hypotension
134. A common sign of increased ICP is:
- A. Bradycardia, irregular respirations, hypertension
  - B. Tachycardia and fever
  - C. Hypotension with tachypnea
  - D. Hyperactive reflexes
135. A ventricular drain is used to:
- A. Deliver medications
  - B. Remove cerebrospinal fluid
  - C. Measure blood pressure
  - D. Stimulate neurons
136. Continuous EEG monitoring is most essential for patients with:
- A. Brain abscess
  - B. Status epilepticus
  - C. Brain tumor
  - D. Spinal cord injury
137. Primary brain injury occurs:
- A. Days after injury
  - B. At the moment of impact
  - C. After swelling begins
  - D. After ICP rises
138. Spinal cord injury at cervical level often results in:
- A. Paraplegia
  - B. Quadriplegia
  - C. Hemiplegia
  - D. Monoplegia
139. A space-occupying lesion refers to:
- A. Infection in the brainstem
  - B. Any mass that increases ICP
  - C. Oxygen deprivation
  - D. CSF blockage only
140. The most common type of brain tumor in adults is:
- A. Glioma
  - B. Meningioma

- C. Neuroblastoma
  - D. Schwannoma
141. . A TIA is defined as:
- A. Stroke lasting >24 hours
  - B. Sudden neurological deficit resolving within 24 hours
  - C. Permanent paralysis
  - D. Hemorrhage in brain tissue
142. A thrombotic stroke results from:
- A. Burst blood vessel
  - B. A clot blocking blood flow
  - C. Excess CSF
  - D. Brain abscess
143. Hemorrhagic stroke is most associated with:
- A. Low blood pressure
  - B. Hypertension and aneurysm rupture
  - C. Dehydration
  - D. Hypoglycemia
144. Generalized tonic-clonic seizures are characterized by:
- A. Brief staring spells
  - B. Muscle rigidity followed by jerking
  - C. Repetitive blinking
  - D. Unilateral twitching only
145. Status epilepticus is a neurological emergency defined as seizures lasting:
- A. <1 minute
  - B. >5 minutes or recurrent without recovery
  - C. >30 minutes only
  - D. Only generalized seizures
146. Myasthenia gravis is caused by:
- A. Dopamine deficiency
  - B. Acetylcholine receptor destruction
  - C. Myelin sheath loss
  - D. Muscle fiber degeneration
147. Guillain-Barré syndrome typically presents with:
- A. Ascending paralysis
  - B. Descending paralysis
  - C. Tremors
  - D. Hyperreflexia
148. Classic sign of tetanus is:
- A. Flaccid paralysis
  - B. Lockjaw (trismus)
  - C. Drooping eyelids
  - D. Confusion only
149. Hyperthermia commonly leads to:
- A. Metabolic acidosis
  - B. Hypoglycemia

- C. Bradycardia
  - D. Hypotension
150. Hypothermia is defined as a body temperature below:
- A. 37°C
  - B. 35°C
  - C. 33°C
  - D. 30°C
151. Meningitis typically presents with:
- A. Cough
  - B. Fever, neck stiffness, photophobia
  - C. Vomiting only
  - D. Hypertension
152. Encephalitis primarily affects:
- A. Meninges
  - B. Brain parenchyma
  - C. Spinal cord
  - D. Peripheral nerves
153. Brain abscess is most often due to:
- A. Autoimmune reaction
  - B. Localized infection
  - C. Hypertension
  - D. Trauma only
154. Hypoxic-ischemic encephalopathy results from:
- A. Infection
  - B. Inadequate oxygen and blood flow
  - C. Autoimmune attack
  - D. Electrolyte imbalance
155. Coma is characterized by:
- A. Full consciousness
  - B. Unresponsiveness and no wakefulness
  - C. Hallucinations
  - D. Partial orientation
156. Brain death includes absence of:
- A. Reflex movements
  - B. Brainstem reflexes and spontaneous breathing
  - C. Muscle tone only
  - D. All EEG activity
157. A craniotomy involves:
- A. Removing the spinal cord
  - B. Opening the skull to access the brain
  - C. Cutting cranial nerves
  - D. Removing the temporal bone only
158. Preoperative care for craniotomy focuses on:
- A. Fluid restriction
  - B. Baseline neurological assessment

- C. Bed rest only
  - D. Sedation only
159. Cholinesterase inhibitors work by:

- A. Blocking dopamine
- B. Increasing acetylcholine levels
- C. Blocking serotonin
- D. Decreasing norepinephrine

160. Adrenoceptor agonists act by stimulating:

- A. Parasympathetic receptors
- B. Sympathetic receptors
- C. Muscarinic receptors only
- D. Nicotinic receptors only

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