



**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: ACN119 FOUNDATION OF CRITICAL CARE NURSING**

DATE 1ST December 2025

DURATION 2hours

START 9:00AM- FINISH:11:00AM

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

1. A client is receiving a platelet transfusion. The nurse determines that the client is gaining from this therapy if the client exhibits.....
 - a) Less frequent febrile episodes.
 - b) Increased level of hematocrit.
 - c) Less episodes of bleeding.
 - d) Increased level of hemoglobin

2. Humoral mediated immunity is carried out by
 - a. B lymphocytes
 - b. T lymphocytes
 - c. Antigen mediated immunity
 - d. Macrophages

3. Which statement below BEST describes how Heparin works as an anticoagulant?
 - a) "It inhibits the synthesis of vitamin K in the liver."
 - b) It binds to prothrombin and reverses the clotting process
 - c) It potentiates the inhibitory effect of factor x and thrombin
 - d) It potentiates aggregation of platelets

4. The nurse suspects the patient with severe sepsis and now developed Disseminated intravascular coagulation (DIC.) Which finding if observed, helps confirm this suspicion?
 - a) Bradycardia
 - b) Polyuria
 - c) Petechiae
 - d) Polyphagia

5. The proteins that promote phagocytosis of antigens through binding are known as
 - a) macrophages
 - b) phagocytes
 - c) opsonins
 - d) Interleukins

6. The nurse concludes both bleeding and clotting occurs during DIC due to which process?
 - a) Activation of intrinsic pathways results in excess release of clotting factors
 - b) Tissue damage from bleeding uses up clotting factors quicker than they can be replaced
 - c) Only clotting occurs when Factor VI is activated
 - d) Excess release of thrombin uses up clotting factors quicker than they can be replaced

7. Rhesus hemolytic disease of the newborn involves:
 - a) Soluble immune complexes
 - b) Antibody to cell surfaces
 - c) Cytokine release from T cells
 - d) Stimulatory antibodies

8. A client is brought to the emergency department having experienced blood loss due to a deep puncture wound. A 3 unit Fresh-frozen plasma (FFP) is ordered. The nurse determines that the reason behind this order is to:
 - a) Provide clotting factors and volume expansion.
 - b) Increase hemoglobin, hematocrit, and neutrophil levels.
 - c) Treat platelet dysfunction.
 - d) Treat thrombocytopenia.

9. Warfarin (Coumadin) is an anticoagulant. What family of anticoagulant medications does this drug belong to?
 - a) Direct thrombin inhibitors
 - b) Indirect thrombin inhibitors
 - c) Vitamin K antagonists
 - d) Factor Xa inhibitors

10. The causative organism of Hemolytic uremic syndrome is
 - a) Streptococci aureus
 - b) Escherichia coli
 - c) staphylococci aureus
 - d) mycobacterium tuberculi

11. A 12-year-old boy admitted with Sick cell crisis. The following nursing intervention will be of highest priority
 - a) Taking hourly blood pressure
 - b) High fowlers position
 - c) Encouraging fluid intake of at least 200ml/hour
 - d) Administer Acetaminophen as ordered

12. A client is diagnosed with aplastic anemia. The nurse monitors for alteration in one of the most important pathophysiological functions
 - a) Decreased bowel movement
 - b) Bleeding tendencies
 - c) Decreased urine output
 - d) Decreased appetite

13. Which of the following disorders is a deficiency of factor VIII?
 - a) Sick cell disease
 - b) Christmas disease
 - c) Hemophilia A
 - d) Hemophilia B

14. What sign and symptoms in your patient with HIV indicates the disease is worsening and the immune system is severely compromised?
- a) Open, oozing lesions around the mouth
 - b) White hair like spots on the side of the tongue
 - c) Cheesy white film on the tonsils and inside cheeks
 - d) Vision changes
15. Hemolytic uremic syndrome (HUS) is a triad of clinical manifestations as follows
- a) Hemolytic anemia, polyuria and pedal oedema
 - b) Micro-angiopathic hemolytic anemia, renal insufficiency, thrombocytopenia
 - c) Micro-angiopathic hemolytic anemia, renal failure, neutropenia
 - d) Micro-angiopathic hemolytic anemia, nephroliathiasis, thrombocytopenia

16. The nurse analyzes the laboratory results of a child with hemophilia. The nurse understands that which result will most likely be abnormal in this child?

- a) Platelet count
- b) Hematocrit level
- c) Hemoglobin level
- d) Partial thromboplastin time

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19. The envelope protein gp120 (Glycoprotein 120) is required for the attachment of the HIV virus to CD4 receptors of target host cells. Identify the immune cells that consist of CD4 receptors:

- a) Dendritic cells
- b) Monocytes
- c) Macrophages
- d) T helper cells

20. Which of the following statements is true of blood donors?
- a) Relatives of the recipient are preferred
 - b) Males are preferred to females
 - c) Must be negative for antibodies to human immunodeficiency virus (HIV) I and II
 - d) Must be negative for antibodies to cytomegalovirus (CMV)
21. Which result will be most likely be abnormal in a child with Hemophilia
- a) Platelet count
 - b) Hemoglobin level
 - c) Partial thromboplastin time
 - d) Hematocrit level
22. The following protease inhibitor drug is used as a highly active antiretroviral therapy (HAART), in a combination regimen with other antiretroviral drugs.
- a) Efavirenz
 - b) Indinavir
 - c) Ritonavir
 - d) Zidovudine
23. The common cause of iron deficiency anemia in men is
- a) Vegetarian diet
 - b) Chronic occult bleeding
 - c) Vitamin C deficiency
 - d) Chronic intravascular hemolysis
24. During the engraftment phase, where do the stem cells move?
- a) Stem cells find their way to the spleen and begin making new cells
 - b) Stem cells find their way to the marrow and begin making new blood cells
 - c) Stem cells find their way to the thymus gland and begin making new blood cells
 - d) Stem cells go to resting phase and remain dormant
25. A 25-year-old female with a diagnosis of Hemolytic uremic syndrome is admitted with severe diarrhea and vomiting. The priority nursing diagnosis will be....
- a) Ineffective breathing pattern
 - b) Impaired skin integrity
 - c) Fluid and electrolyte imbalance
 - d) Ineffective thermoregulation
26. The role of immunosuppressants in patients undergone Bone marrow transplant is
- a) Reduction of White blood cells
 - b) Prevent graft versus host disease
 - c) Increase production of Red blood cells
 - d) Prevent allergic reactions

27. Which statements are true about the pathogenesis of Systemic Lupus Erythematosus?
- a) The phagocytosis process is defective, which causes the nuclear material inside the dying cell to be seen as a foreign invader and antinuclear antibodies are created.
 - b) During cell death the nucleus of the cell fails to condense, which leads to the development of autoantibodies.
 - c) Red blood cells proliferate and attach within the structures of liver and spleen and causing abdominal distension
 - d) Neutrophil activity is decreased and this causes B-cells to attack phagocytes and nuclear material within the cells, which leads to the activation of the complement cascade system and inflammation.
28. The 24-year-old patient is diagnosed with onset of Guillain- Barre Syndrome. The most essential assessment for the nurse to carry out is
- a) monitoring the cardiac rhythm continuously
 - b) determining the level of consciousness q2hr
 - c) evaluating sensation and strength of the extremities
 - d) constantly evaluating the respiratory function
29. what happens with the immune system of a patient diagnosed with Autoimmune disease
- a) The immune cells die
 - b) Antibodies from your immune system mistakenly attack tissues in the body
 - c) The immune system makes too many immune cells to counteract the number of immune cells being damaged
 - d) The immune system produces high amount of antibodies to fight against the pathogens and antigens
30. Which of the following is the most appropriate indication for intramuscular vitamin B12 (cyanocobalamin) injections?
- a) Iron deficiency anemia
 - b) Pernicious anemia
 - c) Folic acid deficiency
 - d) Aplastic anemia
31. The mechanism of action of Azathioprine is
- a) Inhibition of macrophages proliferation
 - b) Inhibition of production of cytokines
 - c) Inhibit purine synthesis along with B and T cells
 - d) Suppression of polymorphonuclear leukocytes

32. Severe anemia can lead to serious complication such as:
- Hepatic coma
 - Cardiac congestive failure
 - Cardiac tamponade
 - Renal failure
33. A patient with a diagnosis of Hemophilia has been involved in serious RTA (Road traffic accident). The patient is at risk for the complication.
- Paralysis
 - Myocardial infarction
 - Bleeding in the brain
 - Infections
34. The antidote for Heparin toxicity is
- Magnesium sulphate
 - Calcium carbonate
 - Protamine sulphate
 - Calcium sulphate
35. The common side effect of intravenous tranexamic acid, particularly when administered too quickly is :
- Severe neutropenia
 - Hypotension and dizziness
 - Acute renal crystal deposition
 - Profound platelet inhibition
36. The following is true about IgG of humans:
- Can cross placenta
 - produced by low affinity plasma cells
 - primarily is restricted in circulation
 - Cannot cross the placenta
37. A patient is to undergo for Bone marrow transplant and a family member requests to understand the meaning of allogeneic transplant. What is the correct response?
- Replacing healthy stem cells with diseased cells, from one's own body
 - Replacing healthy stem cells from a donor to a recipient
 - Treatment for Von willebrand disease
 - Replacing platelets from a donar
38. Chemotaxis refers to:
- Blood cells move away from source of infection
 - Blood cells move towards source of infection
 - Blood cells undergo apoptosis
 - Blood cells clump together to form a clot
39. A 45 year old man is diagnosed with AIDS; he was tested positive for HIV 5 years ago.
- Which of the following statements is true regarding the diagnosis of the disease?
- A low CD4+ T cell count (>200 cells/mm³)
 - It occurs at the early stage of the HIV infection
 - The person with AIDS can live up to 10 years
 - The virus is usually in a dormant state during this stage

40. Which of the following is the site for T cell maturation?
- Bone marrow
 - Tonsils
 - Thymus
 - Spleen
41. The nurse is reviewing the physician's orders written for a male client admitted to the hospital with acute pancreatitis. Which physician order should the nurse question if noted on the client's chart?
- NPO status
 - Nasogastric tube inserted
 - Morphine sulfate for pain
 - An anticholinergic medication
42. A nurse is inserting a nasogastric tube in an adult male client. During the procedure, the client begins to cough and has difficulty breathing. Which of the following is the appropriate nursing action?
- Quickly insert the tube
 - Notify the physician immediately
 - Remove the tube and reinsert when the respiratory distress subsides
 - Pull back on the tube and wait until the respiratory distress subsides
43. A patient has an acute upper GI hemorrhage. Your interventions include:
- Treating hypovolemia.
 - Treating hypervolemia.
 - Controlling the bleeding source.
 - Treating shock and diagnosing the bleeding source.
44. Hepatic encephalopathy develops when the blood level of which substance increases?
- Calcium
 - Amylase
 - Ammonia
 - Potassium
45. The nurse is performing an abdominal assessment and inspects the skin of the abdomen. The nurse performs which assessment technique next?
- Palpates the abdomen for size
 - Palpates the liver at the right rib margin
 - Listen to bowel sounds in all four quadrants
 - Percusses the right lower abdominal quadrant
46. The nurse is assessing a patient in the ER with complaints of abdominal pain, nausea and vomiting. The nurse palpates LLQ and the patient complains of pain in the RLQ. This diagnostic sign is
- Referred pain
 - Rebound tenderness
 - Rovsing sign
 - Chvostek's sign

47. Nurse Spencer is caring for an anorexic client who is having total parenteral nutrition solution for the first time. Which of the following assessments requires the most immediate attention?
- Dry sticky mouth.
 - Temperature of 100° Fahrenheit.
 - Blood glucose of 210 mg/dl.
 - Fasting blood sugar of 98 mg/dl.
48. Your patient with acute pancreatitis is scheduled for a test that will use a scope to assess and treat the pancreas, bile ducts, and gallbladder. The patient asks you, "What is the name of the test I'm going for later today?" You tell the patient it is called:
- CT scan of the abdomen
 - ERCP (Endoscopic retrograde cholangiopancreatography)
 - EEG (Electro-Encephalograph)
 - MRCP (Magnetic resonance cholangiopancreatography)
49. A patient is admitted to the ER with complaints, mid-epigastric pain felt in the back, elevated glucose, fever, and vomiting. You notice bluish discoloration around the belly button. As the nurse, you know this is called?
- Grey-Turner's Sign
 - Homan's Sign
 - McBurney's Sign
 - Cullen's Sign
 -
50. Which lab test result would indicate that Mr. Walker has acute pancreatitis?
- Elevated bilirubin levels
 - Elevated serum lipase and amylase levels
 - Low white blood cell count and creatinine levels
 - Elevated blood alcohol level
51. The nurse is aware that the symptoms of portal hypertension in clients with cirrhosis are chiefly the results of:
- Infection of the liver parenchyma
 - Fatty degeneration of kupffer cells
 - Obstruction of the portal circulation
 - Obstruction of the cystic and hepatic ducts
52. Nurse Oliver checks for residual before administering a bolus tube feeding to a client with a nasogastric tube and obtains a residual amount of 150 mL. What is appropriate action for the nurse to take?
- Discard the residual amount and proceed with administering the feeding
 - Reinstill the amount and continue with administering the feeding
 - Elevate the client's head at least 45 degrees and administer the feeding
 - Withhold the feeding

53. An 18-year-old is admitted with an acute onset of right lower quadrant pain. Appendicitis is suspected. To determine the etiology of the pain, the client should be assessed for:
- a) Urinary retention
 - b) Gastric hyperacidity
 - c) Rebound tenderness
 - d) Increased lower bowel motility
54. When teaching a client about intussusception, the nurse explains that it is
- a) Kinking of the bowel onto itself
 - b) A band of connective tissue compressing the bowel
 - c) Telescoping of a proximal loop of bowel into a distal loop
 - d) A protrusion of an organ or part of an organ through the wall that contains it
55. Which of the following measures should the nurse focus on for the client with esophageal varices?
- a) Controlling blood pressure.
 - b) Encouraging nutritional intake.
 - c) Teaching the client about varices.
 - d) Recognizing hemorrhage.
56. Which of the following tests can be used to diagnose ulcers?
- a) Abdominal x-ray
 - b) Barium swallow
 - c) Computed tomography (CT) scan
 - d) Esophagogastroduodenoscopy (EGD)
57. A client has been given Ondansetron (Zofran). For which condition should the nurse administer this medication to the postoperative patient?
- a) Atelectasis.
 - b) Vomiting
 - c) Incisional pain.
 - d) Abdominal infection.
58. A client with a duodenal ulcer is diagnosed with H. pylori infection. The physician prescribed Amoxicillin, Omeprazole, and Clarithromycin. Which statement made by the nurse correctly explains the purpose of these medications?
- a) "These medicines will minimize acid production and will coat the ulcer".
 - b) "These medicines will stop the acid production and will kill the bacteria".
 - c) "The ulcer will corrode, because the medications will kill the bacteria".
 - d) "These medicines will control the ulcer and motion sickness".
59. A geriatric patient is prescribed with Cimetidine (Tagamet) for the treatment of heartburn. Which of the following is the most frequent CNS side effect?
- a) Vomiting
 - b) Seizures.
 - c) Headache.
 - d) Agitation.

60. A pulsating abdominal mass usually indicates which of the following conditions?
- Liver cirrhosis
 - Enlarged spleen
 - Gastritis
 - Abdominal aortic aneurysm
61. A patient diagnosed with Abdominal Aortic Aneurysm will present with the following clinical manifestations
- Hypertension, Tachycardia and hyperthermia
 - Hypotension, cyanosis and tachycardia
 - Hypotension, bradycardia and chills
 - Hypertension, bradycardia and seizures
62. Which drug is used to relieve reactive spasms in a patient diagnosed with Mesenteric Ischemia?
- Ivermectin
 - Digoxin
 - Propofol
 - Papaverine
63. A nurse is changing the central line dressing of a client receiving Total parenteral nutrition (PN) and notes that there are redness and drainage at the insertion site. The nurse next assesses which of the following?
- Time of last dressing change.
 - Allergy.
 - Client's temperature.
 - Expiration date.
64. A client receiving Total parenteral nutrition (PN) complains of shortness of breath and shoulder pain. A nurse notes that the client has an increased pulse rate. The nurse determines that the client is experiencing which complication of PN therapy?
- Air embolism.
 - Hypervolemia.
 - Hyperglycemia.
 - Pneumothorax.
65. A patient with a history of peptic ulcer disease presented to Emergency department with signs of abdominal pain and rigid board like abdomen and suspected to have perforated ulcer. What intervention should the nurse anticipate?
- Administering and checking gastric PH level
 - Performing fecal occult blood and administering IV calcium gluconate
 - Starting IV fluids and inserting NG tube
 - Starting parenteral nutrition and placing patient in fowlers position.
66. When assessing a male patient for complications of Acute pancreatitis, the nurse would observe for
- Increased intracranial pressure
 - Bradycardia
 - Decreased urine output
 - Hypertension

67. During the primary survey of a patient with blunt abdominal trauma, a bedside FAST exam shows free fluid in pouch of Douglas. The most likely diagnosis is
- Retroperitoneal hematoma
 - Bowel obstruction
 - Hemoperitoneum
 - Peritonitis from perforated viscus
68. In standard triple therapy for *Helicobacter pylori* eradication, the following drug is a proton pump inhibitor used to suppress gastric acid and improve antibiotic effectiveness:
- Ranitidine
 - Omeprazole
 - Sucralfate
 - Metronidazole
69. An unconscious patient was brought to the A/E and ruptured abdominal aneurysm is suspected. Which additional assessment finding will the healthcare provider anticipate?
- Dilated pupils
 - Decorticate posturing
 - Pinpoint pupils
 - Pale, clammy skin
70. Which property best describes magnesium hydroxide and aluminium hydroxide when used as antacids?
- They react rapidly with HCl producing gas and causing belching
 - They react slowly with HCl, neutralize acid efficiently, and do not cause belching
 - They commonly cause metabolic alkalosis due to excessive bicarbonate generation
 - They are systemic antacids absorbed and metabolized to active alkali
71. The disease condition that cause lower GI bleeding is
- diverticulosis
 - duodenal ulcers
 - oesophageal varices
 - severe gastritis
72. A client is suspected of having hepatitis. The confirmatory diagnostic test is:
- Elevated hemoglobin level
 - Elevated serum bilirubin level
 - Elevated blood urea nitrogen level
 - Decreased erythrocyte sedimentation

73. A female client being seen in a physician's office has just been scheduled for a barium swallow the next day. The nurse writes down which instruction for the client to follow before the test?
- a) Fast for 8 hours before the test
 - b) Eat a regular supper and breakfast
 - c) Continue to take all oral medications as scheduled
 - d) Monitor own bowel movement pattern for constipation
74. A patient is admitted to the ER with complaints of severe mid-epigastric pain radiating to the back and the Nurse notes bluish discoloration in the flank region. The sign is known as :
- a) Grey-Turner's Sign
 - b) Homan's Sign
 - c) McBurney's Sign
 - d) Cullen's Sign
75. A client is admitted with a diagnosis of Acute appendicitis. When assessing the abdomen, the nurse would expect to find rebound tenderness at which location?
- a) Left lower quadrant
 - b) Right lower quadrant
 - c) Left upper quadrant
 - d) Right upper quadrant
76. What is the commonest cause of GI bleed
- a) Oesophageal varices
 - b) Oesophagitis
 - c) Hemorrhoids
 - d) Peptic ulcer disease
77. The test used as gold standard for detecting solid organ injuries after blunt abdominal trauma is
- a) Ultrasound
 - b) Barium enema
 - c) Computed tomography
 - d) Magnetic resonance imaging
78. The following action best describes ondansetron?
- a) A weak antihistamine used for motion sickness
 - b) A dopamine antagonist used for gastroparesis
 - c) A potent 5-HT₃ receptor antagonist and strong antiemetic
 - d) A muscarinic antagonist primarily used for vertigo
79. The following are indications for parenteral nutrition except
- a) severe burns
 - b) esophageal stenosis
 - c) short bowel syndrome
 - d) Gastritis

80. A 54-year-old man with alcoholic cirrhosis becomes progressively confused over 48 hours; exam shows asterixis and serum ammonia is elevated. What is the most likely diagnosis?
- a) Acute ischemic stroke
 - b) Hepatic encephalopathy
 - c) Hypoglycaemia from reduced gluconeogenesis
 - d) Wernicke encephalopathy
81. Which infection prevention measure is most effective for ventilator-associated pneumonia (VAP):
- a) Applying humidified oxygen
 - b) Daily sedation vacations
 - c) Turning the patient every 2 hours
 - d) Daily mouth care with chlorhexidine
82. The first step in managing a patient who suddenly becomes unresponsive in the ICU is:
- a) Start chest compression
 - b) Call for help
 - c) Assess responsiveness and pulse
 - d) Check monitors
83. The most effective method for preventing healthcare-associated infections (HAIs) in the ICU is:
- a) Use of gloves only
 - b) Hand hygiene
 - c) Daily linen changes
 - d) Routine prophylactic antibiotics
84. To prevent central line-associated bloodstream infections (CLABSI), the nurse should:
- a) Change the dressing monthly
 - b) Use clean technique during insertion
 - c) Perform daily review for line necessity
 - d) Flush the line only once a week
85. The best way to prevent catheter-associated urinary tract infections (CAUTI) is to:
- A. Use the largest catheter size
 - B. Maintain a closed drainage system
 - C. Irrigate the catheter daily
 - D. Change the catheter every 3 days

86. In preventing surgical site infections (SSI) in ICU post-operative patients, the most important nursing measure is:
- A. Applying antibiotic ointment to the incision
 - B. Maintaining normothermia
 - C. Wearing sterile gloves during vital signs
 - D. Using cold packs on the wound
87. A syringe pump is especially useful when:
- B. Large fluid volumes are required
 - C. Delivering very small or precise medication doses
 - D. Monitoring cardiac output
 - E. Performing suction
88. A patient with an arterial line shows a sudden dampened waveform. The first thing to assess would be:
- A. The patient's medication chart
 - B. The flush system and tubing for air bubbles or clots
 - C. If the BP cuff is working
 - D. The IV fluid rate
89. A critically ill patient is receiving norepinephrine via an infusion pump. The pump alarm indicates "occlusion." The priority nursing action is:
- A. Stop the drug infusion
 - B. Increase the infusion rate
 - C. Check the IV line for kinks or infiltration
 - D. Change the pump battery
90. During CPR in the ICU, the defibrillator is charged for a shock, but the monitor shows artifact. Before pressing the shock button, the nurse should:
- A. Clear everybody immediately
 - B. Increase the monitor gain
 - C. Confirm the rhythm by ensuring proper lead placement
 - D. Switch to AED mode

91. A pulse oximeter suddenly reads 82%, but the patient appears comfortable with no distress. The first step the nurse should take is:
- A. Increase oxygen immediately
 - B. Replace the probe or check probe placement
 - C. Notify the physician
 - D. Obtain arterial blood gas
92. A ventilated patient shows a sudden drop in end-tidal CO₂ on capnography. This most likely indicates:
- A. Increased metabolism
 - B. Dislodged or disconnected endotracheal tube
 - C. Improved ventilation
 - D. Hyperkalemia
93. A syringe pump delivering a medication with a narrow therapeutic range suddenly stops due to low battery. The nurse's immediate action should be to:
- A. Restart the pump after charging
 - B. Transfer the medication to a gravity drip
 - C. Connect the pump to a power source immediately
 - D. Discontinue the medication
94. The subjective data obtained during the nursing process for a patient of the patient with nephrotic syndrome include:
- a) Low BMI, pruritis, high blood pressure
 - b) Pruritis, fatigue, nausea
 - c) Proteinuria, high blood pressure, oedema
 - d) Oedema, fatigue, nausea
95. Application of functional health patterns (domains) in nursing process:
- a) Focuses on health status, risk factors and health promotion
 - b) Organizes and clusters data which should be complete and accurate
 - c) Validates and confirms data accuracy
 - d) Interprets and makes inferences to standard norms
96. A patient in the ICU is on a cardiac monitor displaying a straight line; the best action to be taken by an ICU Nurse is:
- A. Start CPR and ventilation
 - B. Check the pulse and lead placement
 - C. Initiate ventilation and chest compressions
 - D. Call for help and start chest compressions

97. Comprehensive, individualized care provided by the same nurse throughout the period of care refers to:
- a) Team nursing
 - b) Primary nursing
 - c) Functional nursing
 - d) Case management nursing
98. Which vital sign change is the earliest indicator of clinical deterioration?
- A. Low temperature
 - B. Increased respiratory rate
 - C. High blood pressure
 - D. Cyanosis
99. A nurse observes decreased level of consciousness in a sedated patient. The FIRST step is to:
- A. Increase sedation
 - B. Assess airway and breathing
 - C. Restrain the patient
 - D. Call housekeeping
100. A critically ill patient refuses a blood transfusion due to religious beliefs. The nurse respects the decision even though it may worsen the patient's condition. This action demonstrates:
- A. Beneficence
 - B. Non-maleficence
 - C. Autonomy
 - D. Fidelity
101. A nurse administers a medication without performing the required double-check. The patient later develops severe hypotension because an incorrect dose was given. This is an example of:
- A. Battery
 - B. Negligence
 - C. Assault
 - D. Ethical dilemma

102. A nurse witnesses a colleague documenting vital signs that were never taken. Reporting the colleague to protect patients and uphold the profession represents which ethical principle?
- A. Justice
 - B. Veracity
 - C. Beneficence
 - D. Accountability
103. A patient is unconscious and requires emergency surgery. The surgeon instructs the nurse to obtain consent from the patient's spouse, who is unreachable. According to ethical practice, the nurse should:
- A. Delay the surgery
 - B. Proceed under implied consent
 - C. Ask another family member to sign
 - D. Refuse to assist in the procedure
104. A nurse forgets to raise the side rails of a confused ICU patient, who later falls from the bed. This situation BEST represents:
- A. Malpractice
 - B. Battery
 - C. Ethical conflict
 - D. Unintentional tort
105. A nurse advocates for a terminally ill patient to receive pain medication even though the dosage may risk respiratory depression. This decision aligns with which ethical theory?
- A. Utilitarianism
 - B. Deontology
 - C. Ethical relativism
 - D. Virtue ethics

106. A patient accuses a nurse of malpractice after developing a bedsore in the ICU. To defend themselves, the best action would be:
- A. Proving they followed standard protocols
 - B. Showing that the injury was unpreventable
 - C. Getting a colleague to testify in their favor
 - D. Explaining they were short-staffed
107. During handover using SBAR, a nurse reports: “The patient’s BP has dropped from 120/70 to 88/50 in the last 30 minutes, and urine output is now 10 mL/hr.” Which part of SBAR does this information belong to:
- A. Situation
 - B. Background
 - C. Assessment
 - D. Recommendation
108. A nurse caring for a ventilated ICU patient uses the FASTHUG checklist and notes the following: The patient has not had DVT prophylaxis for two days. The nurse should:
- A. Document and continue care
 - B. Wait for the doctor’s ward round
 - C. Contact the primary physician and recommend initiating DVT prophylaxis
 - D. Start heparin after seeking patient consent
109. During SBAR communication with a physician, the nurse states: “I think this patient needs fluid resuscitation and repeat lactate.” This statement corresponds to which part of SBAR:
- A. Background
 - B. Situation
 - C. Recommendation
 - D. Assessment

110. An APACHE II score is calculated for a 65-year-old septic patient. The nurse notes a high APACHE II score. The most accurate interpretation would be:
- A. The patient has normal physiological function
 - B. The patient has a high risk of mortality
 - C. The patient requires no ICU care
 - D. The patient has stable hemodynamics
111. Cares for a mechanically ventilated patient include:
- A. Elevation of the head of the bed, ulcer prophylaxis, deep vein thrombosis prophylaxis
 - B. Ulcer prophylaxis, prone positioning, deep vein thrombosis prophylaxis
 - C. Supine positioning, elevation of the head of the bed, deep vein thrombosis prophylaxis
 - D. Daily sedation vacation, elevation of the head of the bed, routine suctioning
112. One of the below is not a central line bundle:
- a) Promptly remove unnecessary central lines
 - b) Follow proper insertion practices
 - c) Handle and maintain central lines appropriately
 - d) Strictly change the dressings after every 4 days
113. A ventilated patient has rising temperature and increased secretions. To prevent VAP, the nurse needs to prioritize which of the following interventions from the VAP care bundle:
- A. Encourage deep breathing exercises
 - B. Perform oral care with chlorhexidine regularly
 - C. Decrease suctioning to avoid irritation
 - D. Lower the head of the bed to prevent fatigue
114. While implementing the central line care bundle, a nurse notices the insertion site dressing is loose. The most appropriate action would be:
- A. Leave it until the next scheduled dressing change
 - B. Reinforce the edges only
 - C. Replace the dressing using full sterile technique
 - D. Tape it tightly with non-sterile tape

115. During daily sedation interruption (DSI) as part of the ventilator bundle, the nurse notes the patient becomes agitated. What should the nurse do FIRST?
- A. Increase sedation without assessment
 - B. Restart sedation at a lower dose and reassess patient response
 - C. Call for a full resuscitation team
 - D. Remove the endotracheal tube immediately
116. A patient with advanced directives requests no resuscitation, but the team questions whether this applies in the current situation. The nurse's BEST action is to:
- A. Ignore the directive and proceed with CPR
 - B. Advocate for the patient's wishes and clarify with the healthcare team
 - C. Ask the patient's family to decide instead
 - D. Delay action until the physician decides
117. A critically ill patient is unable to make decisions, and the family insists on continuing aggressive treatment despite a poor prognosis. What should the nurse do FIRST?
- A. Follow the family's wishes without question
 - B. Consult the healthcare team and ethics committee to guide decision-making
 - C. Stop all treatments immediately
 - D. Make the decision independently as the nurse
118. Calculate the total caloric requirements in 24 hours for an ICU patient weighing 80 kgs. The energy requirement is 25 Kcal/kg/day.
- a) 1500 calories
 - b) 1800 calories
 - c) 2000 calories
 - d) 2500 calories
119. Nosocomial infections in critical care patients are commonly caused by:
- A. Enterococcus faecalis, entamoeba histolytica
 - B. Escherichia coli, lactobacillus
 - C. Escherichia coli, pseudomonas aeruginosa
 - D. Pseudomonas aeruginosa, Klebsiella

120. Internal environmental critical care unit (CCU) emergencies include:
- a) Cardiorespiratory arrest, power failure
 - b) Pulmonary embolism, air crash
 - c) Gas failure, fire outbreak
 - d) Oxygen failure, road traffic accidents
121. The primary purpose of nursing research is:
- a) To improve patient care
 - b) To earn recognition
 - c) To replace medical research
 - d) To reduce nurses' workload
122. Which of the following is the first step in the research process?
- a) Data collection
 - b) Identifying the problem
 - c) Literature review
 - d) Hypothesis formulation
123. Which of the following best describes general objectives of research?
- a) Broad statements about what the research intends to achieve
 - b) Specific, measurable outcomes of the study
 - c) Hypotheses to be tested
 - d) Tools for data collection
124. The primary purpose of a literature review is to:
- a) Summarize the entire research
 - b) Identify knowledge gaps and guide the study
 - c) Present statistical data
 - d) Test the hypothesis
125. A good research title should be:
- a) Long and detailed
 - b) Short, clear, and informative
 - c) Confusing but unique
 - d) Written after data collection
126. Systematic error in research mainly affects:
- a) Accuracy of results
 - b) Random variability
 - c) Generalizability of findings
 - d) Sample size calculation
127. Which of the following research designs is most suitable for cause-effect relationships?
- a) Descriptive research
 - b) Experimental research
 - c) Exploratory research
 - d) Historical research

128. In quantitative research, data are usually presented in:
- Words and themes
 - Numbers and statistics
 - Narratives and stories
 - Case descriptions
129. Which sampling technique ensures every member of the population has an equal chance of selection?
- Convenience sampling
 - Purposive sampling
 - Random sampling
 - Snowball sampling
130. The process of selecting a portion from the population is called:
- Enumeration
 - Sampling
 - Stratification
 - Hypothesizing
131. Stratified sampling involves:
- Dividing population into groups and randomly selecting within each group
 - Choosing anyone available
 - Selecting the whole population
 - Taking volunteers only
132. The main difference between qualitative and quantitative research is that qualitative research focuses on:
- Numbers and measurement
 - Statistical analysis
 - Understanding meaning and experiences
 - Hypothesis testing
133. Which tool is best for collecting qualitative data?
- Observation checklist
 - Structured questionnaire
 - Interview
 - Survey form
134. In research, the entire group under study is known as:
- Sample
 - Population
 - Variable
 - Control

135. Independent variable is:
- The outcome variable
 - The manipulated variable
 - The confounding factor
 - The constant
136. The principle of informed consent in research ensures:
- Subjects are forced to participate
 - Participants voluntarily agree after full information
 - Confidentiality is broken
 - Data is fabricated
137. Referencing in APA style requires:
- Footnotes only
 - Author-date citation system
 - Numbered references
 - No in-text citation
138. Measuring pain intensity as mild, moderate, or severe represents:
- Nominal
 - Ordinal
 - Interval
 - Ratio
139. Which of the following can be measured at nominal scale only?
- Gender
 - Height
 - Temperature
 - Income
140. The measure of central tendency that divides the data into two equal parts is:
- Mean
 - Median
 - Mode
 - Variance
141. The total area under a normal distribution curve is:
- 0
 - 0.5
 - 1
 - 2
142. About 95% of data lies within:
- $\pm 1\sigma$
 - $\pm 2\sigma$
 - $\pm 3\sigma$
 - $\pm 0.5\sigma$

143. The mode of the data set {2, 4, 4, 6, 7} is:
- a) 2
 - b) 4
 - c) 6
 - d) 7
144. For the data set {5, 10, 15, 20, 25}, the median is:
- a) 10
 - b) 15
 - c) 20
 - d) 25
145. The range of the data set {4, 8, 15, 16, 23, 42} is:
- a) 38
 - b) 42
 - c) 23
 - d) 16
146. A hypothesis is best defined as:
- a) A proven fact
 - b) An assumption made without evidence
 - c) A tentative statement that can be tested
 - d) A conclusion drawn from research
147. The hypothesis stating “There is no significant difference between boys and girls in mathematics performance” is an example of:
- a) Research hypothesis
 - b) Directional hypothesis
 - c) Null hypothesis
 - d) Alternative hypothesis
148. The first step in the research process is:
- a) Data collection
 - b) Identifying the research problem
 - c) Formulating a hypothesis
 - d) Literature review]
149. In research, the plan that outlines how data will be collected and analyzed is called:
- a) Research instrument
 - b) Research design
 - c) Research problem
 - d) Research population
150. In a bar graph, the bars should be:
- a) Touching each other
 - b) Equally spaced apart
 - c) Drawn without scale
 - d) Drawn diagonally

151. A histogram is used to represent:
- Qualitative data
 - Continuous frequency distribution
 - Discrete data only
 - Nominal data
152. Which type of diagram is best suited to show the relationship between two variables?
- Histogram
 - Bar diagram
 - Scatter diagram
 - Pie chart
153. When a researcher unintentionally influences study outcomes because of expectations, this is
- Recall bias
 - Observer bias
 - Information bias
 - Publication bias
154. Which of the following is a primary source of data?
- Textbooks
 - Research articles
 - Interviews with patients
 - Review articles
155. The primary purpose of research dissemination is to:
- Increase funding for future projects
 - Inform practice, policy, and further research
 - Make the researcher popular
 - Ensure data confidentiality
156. Which of the following best defines a “vulnerable population”?
- Groups with high economic status
 - Groups with limited ability to protect their own interests
 - People who refuse medical care
 - Communities with high literacy levels
157. Which principle emphasizes that participants must voluntarily agree to take part in a study after being informed of all aspects?
- Confidentiality
 - Integrity
 - Informed consent
 - Beneficence

158. According to research ethics, payments to human subjects should be:
- a) Excessive to attract more participants
 - b) Kept secret from ethics committees
 - c) Reasonable and not coercive
 - d) The same for all studies regardless of risk
159. Which of the following is a form of plagiarism?
- a) Citing references accurately
 - b) Paraphrasing with proper citation
 - c) Copying text without acknowledgment
 - d) Quoting with quotation marks
160. The principle of beneficence in research ethics refers to:
- a) Publishing in high-impact journal
 - b) Respecting cultural diversity
 - c) Avoiding plagiarism
 - d) Doing no harm and maximizing benefits

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