



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING AND MIDWIFREY
HIGHER DIPLOMA IN CRITICAL CARE NURSING
END OF SEMESTER EXAMINATION APRIL 2022**

Course Unit: ACN 130 SPECIALIZED AREAS IN CRITICAL CARE

Date: 14/4/22

Time: 2 hours

Start: 9.00 AM Stop: 11.00AM

Instructions

- 1) This paper has one section: Section A.
- 2) Answer **ALL** questions in Section A. ,
- 3) Use the University examination booklets provided
- 4) Re-writing the questions on your answer sheet is unnecessary

SECTION A- MULTIPLE CHOICE QUESTIONS (70 MARKS)

1. The following statement is **true of leaders** as opposed to managers:
 - a. Have assigned position within a formal organization
 - b. Have delegated authority
 - c. Emphasize control, decision making and results
 - d. Obtain power through influencing others

2. The following statement **BEST** describes the philosophy of an organization;
 - a. The reason for the organization's existence
 - b. The desired future of the organization
 - c. The values and beliefs an organization require to meet organizational goals
 - d. The work coordination in the organization

3. Modes of conflict resolution which are assertive, cooperative and in which people work creatively to find solutions include:
 - a. Collaborating, negotiating
 - b. Coercing, Smoothing
 - c. Accommodating, confrontational
 - d. Compromise, competing

4. The functions of continuous quality improvement in a hospital include one of the following;
 - a. Fault finding on clinical practice
 - b. Applying disciplinary measures upon identifying process failure
 - c. Intolerance to imperfection in clinical practice
 - d. Systematic investigation of incidences to improve care

5. In the group dynamics while forming a team, the stage which is characterized by tension, competition, conflict and polarization is:
 - a. Norming
 - b. Storming
 - c. Forming
 - d. Adjourning

6. The mission statement of an organization indicates:
 - a. The purpose for existence of the organization
 - b. The fundamental aims of the organization

- c. The future plans for the organization
 - d. End results of its planned activities
7. The following is true about an authoritative leader:
- a. Productivity is high, goal setting by the group is encouraged
 - b. Efficiency of the team is low, creativity is encouraged
 - c. Responsibility is shared, supervision is close
 - d. Suitable in emergency situations, open communication is encouraged
8. In the Lewin's change theory, the unfreezing stage involves:
- a. Identifying a change agent
 - b. Integrating change as a value system
 - c. Unlearning old systems of doing things
 - d. Identifying change barriers
9. The statement below best describes strategic planning:
- a. Reactive or proactive identification and management of problems that arise
 - b. Process of establishing standards of performance, Measuring, evaluating and providing feedback
 - c. Process of defining and prioritizing long-term objectives
 - d. Process of coordinating work to be done, division of labour and assigning authority
10. The leadership theory that proposes that people are born to lead is:
- a. Traits
 - b. Behavioral
 - c. Great Man
 - d. Contingency
11. The following is **TRUE** on transformational leadership:
- a. The leader focuses on management tasks
 - b. Contingency rewards are primes of leadership
 - c. Give and take is a core leadership style
 - d. Uses individualized attention in leading others
12. When deploying staff in a department, the following consideration is made;

- a. Place the employee where they are needed irrespective of expertise in skill
 - b. Match employee's strength to the job requirements
 - c. Do not consider the employees' interest
 - d. Placement has no role in attrition rates
13. The following is a barrier to active listening:
- a. Noise
 - b. Characteristics of the Facilitator
 - c. Preconceived beliefs
 - d. Instructional Resources
14. Recruitment is an important exercise in Nursing. The best recruitment strategy is based on:
- a. Referral from other organizations
 - b. Organizational reputation and retention
 - c. Selection by senior management
 - d. Referrals from the board of management
15. The rule of the thumb in performance appraisal is:
- a. Use a structured form
 - b. Refer to the previous year performance
 - c. Evaluate beyond the structured appraisal form
 - d. Rely heavily on senior nurses' appraisal and peer review
16. Drills in disaster management are performed at what stage of the disaster management cycle:
- a. Recovery
 - b. Prevention
 - c. Response
 - d. Preparedness
17. In the functions of management, the function that involves structure definition, care delivery models, power recognition and goals achievement is:
- a. Controlling
 - b. Directing
 - c. Planning
 - d. Organizing

18. A management theory that postulated that productivity would improve if people could be taught the best way to accomplish a task was coined by:
- Max Weber
 - Henri Fayol
 - Fredric Taylor
 - Lurther Gulic
19. Material management is essential in budget process. The following is part of equipment management;
- Trouble shooting in faulty equipment
 - Procuring equipment
 - Directing
 - Planned preventive maintenance
20. In project management, the component that describes the specific concern, the scope of the concern and the geographic area is:
- Objectives
 - Goals
 - Problem statement
 - Possible solutions
21. The le theory proposing that learning is achieved by making association between a stimulus and a response is;
- Social learning theory
 - Cognitive theory
 - Humanistic theories
 - Behavioral theories
22. Evaluation performed with an objective to give diagnostic feedback to the learner and the teacher is;
- Inductive evaluation
 - Formative Evaluation
 - Summative evaluation
 - Terminal evaluation
23. One of the following topics can be addressed in role play;

- a. ECG interpretation
 - b. Endotracheal suctioning
 - c. Breaking bad news
 - d. Utilization of concept maps
24. The adult learning theory stipulates that:
- a. Learners should be given learning objectives
 - b. Learners need close guidance as they have many responsibilities
 - c. Learners motivation to learn is largely extrinsic
 - d. Learners have personal intentions and expectations
25. The following are techniques for teaching attitudes:
- a. Films, Stories, Role models, Role play
 - b. Films, Role play, Lecture, Demonstration
 - c. Role play, Lectures, Stories, Films
 - d. Stories, Role play, Lecture, Films
26. "Learning can only take place when basic needs are met" Which of the following learning theorist used this premise?
- a. Abraham Maslow
 - b. Malcom Knowles
 - c. Bandura
 - d. Carl Rogers
27. Audio instructional media include:
- a. Flip charts, projectors
 - b. Radio, telephone
 - c. White boards, television
 - d. Videos, slide projector
28. The following statement is true of problem-based learning:
- a. Students identify areas of learning which are of interest to them
 - b. Students are under supervision
 - c. Acquisition of integrated body of knowledge developing analytical skills
 - d. The learner learns by observing others solve problems

29. The type of questions used in Likert scales are;
- Close-ended
 - Open-ended
 - Matrix
 - Contingency
30. Reinforcement during teaching may be achieved by:
- Nodding, giving rewards
 - Probing, patting in the shoulder
 - Praising learners, pausing
 - Smiling, giving relevant examples
31. When choosing a teaching method approach, the BEST factors to consider include;
- Learners preference, expected terminal behaviour
 - Time available, learners' characteristics
 - Set objectives, learners' preference
 - Expected terminal behaviour, students ability to learn
32. The Principles of classical conditioning theory applied in nursing education are:
- Role modeling and observation
 - Stimulus and response
 - Reinforcement and punishment
 - Self-direction and learner involvement
33. Evaluation performed by the learner to give end of program feedback is;
- Terminal evaluation
 - Deductive evaluation
 - Formative Evaluation
 - Summative evaluation
34. The following statement is true on the steps for competency-based curriculum development;
- Professional roles are defined after the curriculum has been developed
 - Role and functions of the teacher are identified after the curriculum has been developed
 - Task analysis on professional roles and functions is performed
 - Learners input in learning objectives is required

35. The following theorist introduced the three domains in learning; Cognitive, affective and psychomotor;
- Carl Rogers
 - Albert Bandura
 - Benjamin Bloom
 - Eric Ericson
36. The curriculum development approach which focuses on the tasks the learner will be expected to perform at end of training is:
- Subject centered approach
 - Competency based approach
 - Integrated approach
 - Student centred approach
37. In a teaching session, a teacher needs to vary stimulus in order to;
- Improve learners attention
 - Encourage independent thinking
 - Assess the entry behavior
 - Test what students have learnt
38. Classical conditioning theory was developed by;
- Bloom
 - Macgregor
 - Pavlov
 - Henri Fayol
39. curriculum development focuses on;
- Theoretical concepts
 - Competencies
 - Mentorship
 - Economic empowerment
40. According to the social learning theory:
- A learner is likely to adopt behavior if it results in outcomes they value
 - Punishment and reinforcement play a minimal role in learning
 - Attention of the learner can be improved by immediate enactment
 - The learner is considered relatively passive and easily manipulated.

41. The most appropriate instruction to r a mother with a a newborn infant with hyperbilirubinemia is; who is being breastfed. The nurse provides which most appropriate instructions to the mother?
- Switch to bottle feeding the baby for 2 weeks
 - Stop the breast feedings and switch to bottle-feeding permanently
 - Feed the newborn infant less frequently
 - Continue to breast-feed every 2-4 hours
42. Surfactant replacement therapy is administered through;
- Intravenous injection
 - Instillation of the preparation into the lings through an endotracheal tube
 - Intramuscular injection
 - Subcutaneous injection
43. A nurse in a newborn nursery receives a phone call to prepare for the admission of a 43-week-gestation newborn with Apgar scores of 1 and 4. In planning for the admission of this infant the nurse's highest priority should be to:
- Turn on the apnea and cardiorespiratory monitors
 - Set up the intravenous line with 5% dextrose in water
 - Connect the resuscitation bag to the oxygen outlet
 - Set the radiant warmer control temperature at 36.5 degree Celsius
44. The following is the most important cause of jaundice presenting in the first 24 hours of life;
- Physiological jaundice.
 - Prematurity.
 - Breastfeeding.
 - Haemolysis.
45. Phototherapy decreases unconjugated serum bilirubin levels through the following mechanisms;
- Isomerization of the bilirubin molecule to lumirubin, which is water-soluble and can then, be excreted by the kidneys.
 - Direct conjugation of the bilirubin molecule which allows it to be excreted by the liver.

- c. Induction of the enzyme glucuronyl transferase in the liver, which increases bilirubin conjugation and liver excretion.
 - d. Isomerization of the bilirubin molecule causing it to be sequestered in the skin and then be destroyed by skin macrophages.
46. Clinical manifestation of neonatal hypoglycaemia include;
- a. Diarrhoea, hypoflexion, tremors
 - b. Tremors, high pitched cry, areflexia
 - c. Jitteriness, bradycardia, hyperthermia
 - d. Hypothermia, lethargy, tachycardia
47. The following is a complication of meconium aspiration syndrome;
- a. Pulmonary hyperplasia
 - b. Persistent pulmonary hypertension
 - c. Pulmonary stenosis
 - d. Pulmonary embolism
48. The priority nursing action while caring for a newborn baby with gastrochisis is;
- a. Cover the abdominal organs with sterile gauze soaked in disinfectant
 - b. Cover the abdominal organs with sterile gauze soaked in saline
 - c. Wait for the pediatrician to give the right direction
 - d. Prepare the newborn for surgical repair
49. The following assessment finding is of highest concern in a neonate with a diagnosis of Necrotizing enterocolitis (NEC);
- a. Increased abdominal girth
 - b. Poor feeding
 - c. Crying frequently
 - d. Low grade temperature
50. The indication for RhoD immunoglobulin (RhoGAM) is to protect the fetus from;
- a. Developing physiological jaundice
 - b. Having Rh positive blood
 - c. Being affected by Rh incompatibility
 - d. Developing a rubella infection

51. The appropriate strategy to measure the head circumference of a neonate is;
- Wrap the tape measure around the infant's head and measure just above the eyebrows.
 - Place the tape measure under the infant's head at the base of the skull and wrap around to the front just above the eyes
 - Place the tape measure under the infant's head, wrap around the occiput, and measure just above the eyes
 - Place the tape measure at the back of the infant's head, wrap around across the ears, and measure across the infant's mouth.
52. The following is a neural tube defect;
- Encephalomyelocele
 - Omphalocele
 - Hydrocephalus
 - Sacroccocygeal Teratoma
53. Trophic feeds are primarily intended to:-
- Supplement the caloric value of parenteral feeds
 - Protect the integrity of gastric mucosa
 - Wean the neonate off the parental feeds
 - Introduce normal flora into the alimentary canal
54. The appropriate nursing action for an intubated premature neonate with a SPO₂ of 80% is;
- Listen to breath sounds and ensure the patency of the endotracheal tube, increase oxygen, and notify a physician.
 - Continue to observe and make no changes until the saturations are 75%.
 - Continue with the admission process to ensure that a thorough assessment is completed.
 - Notify the parents that their infant is not doing well.
55. The following ECG (Electrocardiogram) characteristics are suggestive of Supraventricular tachycardia (SVT) in a paediatric patient;
- Gradual onset, Variable R-R intervals
 - Abrupt onset, heart rate more than 200 beats per minute
 - Abrupt onset with wide QRS complex
 - Gradual onset, heart rate less than 180 beats per minute

56. The following assessment finding is suggestive of pneumococcal pneumonia in a 12 year old child;
- Chest pain
 - Bulging fontanelle
 - Mild cough
 - Slight fever
57. An asthmatic attack that is unresponsive to conventional treatment is referred to as.
- Intrinsic asthma
 - Status asthmaticus
 - Reactive airway disease
 - Extrinsic asthma
58. A three year old child's with acute bronchitis , the inflamed airway causes circumferential reduction up to what percent?;
- 1mm circumferential edema causes 20% reduction
 - 1mm circumferential edema causes 10% reduction
 - 1mm circumferential edema causes 50% reduction
 - 1mm circumferential edema causes 75% reduction
59. Total parental nutrition is indicated for children with;
- Massive small bowel resection
 - Multiple organ failure
 - Mild malnutrition
 - Functional gut
60. When changing a central line dressing of a pediatric client receiving parenteral nutrition (PN) .The nurse assesses for the following;
- Time of last dressing change.
 - Allergy.
 - Client's temperature.
 - Expiration date.
61. The maintenance of fluid and electrolyte balance is more critical in children than in adults because:
- Cellular metabolism is less stable than in adults

- b. The proportion of water in the body is less than in adults
 - c. The daily fluid requirement per unit of body weight is greater than in adults
 - d. Renal function is fully matured in children
62. Hyponatremic dehydration refers to;
- a. Greater loss of sodium than water.
 - b. Greater loss of water than sodium
 - c. Sodium and water is lost in relatively equal proportion.
 - d. Greater loss of sodium and potassium
63. Colloids solutions are indicated in children with;
- a. Severe dehydration
 - b. Hypoglycaemia
 - c. Severe Hypoglobulinemia
 - d. Hyponatremia
64. The general appearance of a two year old child with severe dehydration is;
- a. Limp and peripheral cyanosis
 - b. Lethargic, postural dizziness
 - c. Diminished tears
 - d. Alert and restless
65. The most common congenital heart defect with a left to right shunt causing congestive heart failure in the paediatric age group is;
- a. Atrial septal defect
 - b. Ventricular septal defect
 - c. Patent ductus arteriosus
 - d. Arterio-ventricular canal defect
66. A child with blood gas that shows a pH of 7.5, PaCO₂ of 40 mmHg, PaO₂ of 60 mmHg and HCO₃ of 32 mEq/L is considered to be having;
- a. Uncompensated respiratory acidosis
 - b. Compensated respiratory acidosis with hypoxemia
 - c. Uncompensated metabolic acidosis
 - d. Uncompensated metabolic alkalosis with hypoxemia

67. A nine month old infant born with a congenital cardiac defect; transposition of great arteries with tricuspid atresia (TGA with TA) is commenced on prostaglandin E2. This is to;
- Decrease the intensity of heart murmur
 - To prevent intra cardiac blood shunting
 - Maintain patency of the ductus arteriosus
 - Reduce irritability and prolonged crying
68. The following modes of ventilation reduces the work of breathing by overcoming the resistance created by ventilator tubing in PICU (pediatric intensive care unit);
- Assist control mode
 - Pressure control mode
 - Synchronized intermittent mandatory ventilation
 - Controlled mandatory ventilation
69. Clinical manifestations of increased intracranial pressure in infants include:
- Distended scalp veins, poor feeding, blurred vision
 - Drowsiness, lethargy, seizures, vomiting and diarrhoea
 - Tense bulging fontanelle, high pitched cry, distended scalp veins
 - Distended scalp veins, drowsiness, blurred vision, sunken fontanelle
70. Seizures associated with Neonatal Jaundice are referred to as;
- Kernicterus
 - Jacksonian Epilepsy
 - Focal Epilepsy
 - Petit Mal