

**SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL
SCIENCES & TECHNOLOGY, TRIVANDRUM**

ENTRANCE EXAMINATION: NOVEMBER 2015

**PROGRAMME: DIPLOMA IN CARDIOVASCULAR AND THORACIC
NURSING/NEURO NURSING**

Duration: 90 minutes

Total marks: 100

(Select the most appropriate answer; Each question carries one mark)

1. Each of the following drugs is appropriate for the treatment of cardiac arrhythmia EXCEPT one. Which one is the exception?
 - A. Phenytoin
 - B. Neostigmine
 - C. Quinidine
 - D. Propranolol
2. While giving Cardiopulmonary resuscitation to an adult, the recommended rate of external chest compression as per 2010 American Heart Association guidelines is
 - A. 60/min
 - B. 72/min
 - C. 80/min
 - D. 100/min
3. What is the name of the disorder called that involves delusions, hallucinations, and inappropriate emotional responses to situations?
 - A. Parkinson's disease
 - B. Schizophrenia
 - C. Epilepsy
 - D. Cerebral palsy
4. An intravenous set can be safely used for a patient for a maximum duration of
 - A. 12 hrs
 - B. 24 hrs
 - C. 48 hrs
 - D. 72 hrs
5. Which one of the following arrhythmias needs to be defibrillated immediately?
 - A. Ventricular Asystole
 - B. Atrial fibrillation
 - C. Pulseless Electrical Activity
 - D. Pulseless Ventricular Tachycardia

6. Intravenous fluids once opened must either be used or discarded every
- A. 8 hrs
 - B. 12 hrs
 - C. 24 hrs
 - D. 48 hrs
7. The part of the neuron that receive messages from other cells is called:
- A. Axon
 - B. Cell body
 - C. Axonites
 - D. dendrites
8. Ventricular fibrillation is a chaotic rhythm characterized by a quivering of the ventricles that result in
- A. Fainting
 - B. Myocardial Infarction
 - C. Rapid respiration
 - D. Total loss of cardiac output
9. The dosage of oral anticoagulant warfarin is regularized by measuring
- A. Activated partial thromboplastin time
 - B. International normalized ratio
 - C. Bleeding time
 - D. Clotting time
10. Which one of the following is **WRONG** regarding Furosemide (Lasix)?
- A. The onset of action after oral administration is within one hour
 - B. Furosemide is a potent diuretic
 - C. The action lasts about 6 hours after oral administration
 - D. Injection Furosemide is available as 20 mg/ml
11. An inflammation of the brain is called _____.
- A. meningitis
 - B. uveitis
 - C. encephalitis
 - D. neuritis
12. Obtaining a written informed consent, before a surgery is the responsibility of the
- A. patient
 - B. duty nurse
 - C. supervising nurse
 - D. doctor

13. The Cerebro Spinal Fluid flows in the space between the Arachnoid and the
- Piamater
 - Duramater
 - Ligamentum Flavum
 - Periosteum
14. Which one is the best defense in legal issues associated with nursing?
- physician's report on incident
 - nursing supervisor's report on incident
 - duty nurse's accurate documentation
 - patient's self-report
15. What instruction is most appropriate in patient with trigeminal neuralgia to prevent triggering the pain?
- Drink iced foods
 - Avoid oral hygiene
 - Apply warm compresses
 - Chew on the unaffected side
16. Which one of the following is **WRONG** regarding Diazepam (Valium)?
- Diazepam is available as 5mg/ml in 2ml ampoule, and 10 ml vials
 - should be injected slowly, taking at least one minute for each 10 mg
 - is available for oral, parenteral and rectal administration
 - Tab. Diazepam may be taken with or without food.
17. Interventions to decrease increased intracranial pressure include all of the following **except**
- Inj. Mannitol
 - Hypoventilation
 - Inj. Dexamethasone
 - Neutral neck position
18. Which of the following is an assessment priority in a patient with a suspected cervical spinal cord injury?
- Abdominal assessment
 - Cardiac assessment
 - Neurological assessment
 - Respiratory assessment
19. The most common cause of dementia in the elderly population is
- Head trauma
 - Vascular disease
 - Alzheimer's disease
 - Parkinson's disease

20. The electrolyte that plays an important role in the coagulation cascade is
- Calcium
 - Sodium
 - Potassium
 - Magnesium
21. Romberg's test assesses which of the following?
- speech
 - gait
 - coordination
 - Balance
22. 'Ringing in the ears' is otherwise termed as
- Tinnitus
 - Trigeminal neuralgia
 - Meniere's disease.
 - Tenesmus
23. Which of the following heart valve disease is frequently associated with the arrhythmia, atrial fibrillation?
- Mitral
 - Tricuspid
 - Aortic
 - Pulmonic
24. Primary responsibility of the nurse during generalized tonic clonic seizure is
- determining whether an aura was experienced
 - inserting a plastic airway between the teeth
 - clearing the immediate environment for safety
 - administering the prescribed antiepileptic drug
25. Which one of the following assessment is for assessing a patient's cranial nerve function?
- Assessing Hand grip
 - Testing Gag reflex
 - Testing orientation to time, place and person
 - Checking for arm drift
26. A patient who has been experiencing angina has a new prescription for Nitroglycerin. Which of the following should the nurse include in teaching about the side effects of Nitroglycerin?
- Head ache
 - Shortness of breath
 - Bradycardia
 - Hypertension
27. When placing an indwelling urinary catheter in an adult female patient, the nurse gently inserts the catheter into the urethral meatus for approximately ---
--- cm while watching for urine flow
- 2-3 cm
 - 4-5 cm
 - 5-7 cm
 - 8-10 cm

28. The 'p' wave in the ECG represents
- Depolarization of Atria.
 - Repolarisation of Atria.
 - Contraction of Atria.
 - Relaxation of Atria.
29. Fever is often associated with increased heart rate and cardiac output. A patient with an increased body temperature without an increased heart rate may be a result of
- drug
 - wound infection
 - urinary tract infection
 - deep vein thrombosis
30. As blood leaves the left atrium and is pumped to the left ventricle, it passes through the
- Mitral valve
 - Aortic valve
 - Tricuspid valve
 - Pulmonic valve
31. Where is the apical pulse normally located?
- Left sternal border at the fifth intercostal space.
 - Left midclavicular line at the fourth or fifth intercostal space.
 - Left anterior axillary line at the fifth intercostal space.
 - Right sternal border at the second intercostal space.
32. Number of pairs of spinal nerves in man is:
- 33
 - 32
 - 31
 - 12
33. Which one of the following increases lower limb blood flow significantly?
- Active foot and ankle movement
 - Passive movement
 - Aggressive Drug therapy
 - Electrical stimulation
34. A nurse is providing discharge instructions about digoxin. Which response should a nurse include as a reason for the client to withhold the digoxin?
- Chest pain
 - Blurred vision
 - Persistent hiccups
 - Increased urinary output
35. Which of the following is NOT a warning sign of stroke?
- Sudden unilateral vision loss
 - Sudden severe headache
 - Unilateral neglect syndrome
 - Blurred vision

36. The nurse expects a patient with Parkinson's disease to exhibit
- A. Tonic-clonic seizure
 - B. Decrease in intelligence
 - C. Mask like face
 - D. Changes in pain tolerance
37. What should be the drip rate per minute of an IV fluid to finish 500 ml in 5 hours (1 ml = 15drops)
- A. 12.5
 - B. 25
 - C. 50
 - D. 100
38. Accumulation of blood between the arachnoid and duramater is known as
- A. Subdural hematoma
 - B. Epidural hematoma
 - C. Subarachnoid hemorrhage
 - D. Intra cranial hemorrhage
39. For a child with serious head injury, the nurse anticipates inserting a Ryle's tube initially to
- A. Administer medication.
 - B. Decompress the stomach.
 - C. Obtain gastric specimen for analysis.
 - D. Provide adequate nutrition.
40. The storage temperature of suppositories is less than -----.
- A. 80° F
 - B. 85° F
 - C. 90° F
 - D. 100° F
41. Which laboratory value of serum is most useful in assessing liver function?
- A. Potassium
 - B. Sodium
 - C. Creatinine
 - D. Protein
42. A patient after craniotomy develops fever on post-operative day two. What is your inference about this rise in temperature?
- A. Early sign of wound infection
 - B. Respiratory complication
 - C. Increase in metabolism secondary to tissue trauma
 - D. Side-effect of drug
43. During Gentamycin therapy we should monitor a patient's serum
- A. Potassium level
 - B. Creatinine level
 - C. Glucose level
 - D. Calcium level

44. The nurse is administering sublingual nitroglycerin to a patient. Immediately afterwards the patient may experience
- A. Throbbing headache or dizziness
 - B. Drowsiness or blurred vision
 - C. Tinnitus or diplopia
 - D. Nervousness or paresthesia
45. Inj. Phenytoin (Dilantin) is diluted using
- A. Normal saline
 - B. 5% dextrose
 - C. Ringer Lactate
 - D. 5% dextrose saline
46. Statistics that describes the average for a data set is
- A. percentage
 - B. mode
 - C. mean
 - D. median
47. Ideally blood for Lipid profile
- A. can be taken at any time.
 - B. should be taken 12 hours after a standard meal.
 - C. should be taken 2 hours after a standard meal.
 - D. can be taken after a standard meal.
48. The nurse is preparing to administer sustained release tablet to a patient. Which statement about sustained release tablet is true?
- A. They should never be split or crushed or chewed.
 - B. They should never be split or crushed, but they may be chewed.
 - C. They should never be chewed, but they may be split or crushed.
 - D. They may be split, crushed, or chewed, depending on the client's condition.
49. Which one of the following is considered as 'good cholesterol'?
- A. Very Low Density Cholesterol.
 - B. Low Density Cholesterol.
 - C. High Density Cholesterol.
 - D. Very High Density Cholesterol.
50. Which of the following is not an effect of Aspirin?

- A. Stimulates platelet aggregation
- B. Prophylaxis in patients with coronary artery disease
- C. Anti-inflammatory
- D. Anti pyretic

51. The lobe of cerebral cortex that registers general sensations such as heat, cold, pain and touch is the
- A. Frontal
 - B. Parietal
 - C. Occipital
 - D. Temporal
52. A patient who is regaining consciousness after a craniotomy become restless and attempts to pull out her intravenous line. Which nursing intervention protects her without increasing her intracranial pressure?
- A. Place her in a jacket restraint
 - B. Tuck her arms and hands under the draw sheet
 - C. Wrap her hands in soft mitten restraints
 - D. Apply a wrist restraint to each arm
53. The normal fasting blood sugar in an adult is ----- mg/100ml
- A. 60 - 100
 - B. 70 - 110
 - C. 80 - 120
 - D. < 140
54. Which activity would the nurse encourage the patient to avoid when there is a risk for increased intracranial pressure?
- A. Deep breathing
 - B. turning
 - C. coughing
 - D. passive range of motion exercise
55. Which one of the following statements about cerebrospinal fluid (CSF) is **wrong**?
- A. Normal volume in adult is 120-150 ml
 - B. Normally CSF may contain up to five polymorphonuclear leucocytes
 - C. CSF pressure as measured by lumbar puncture is more when sitting up
 - D. Cerebrospinal mixed with blood forms a "halo sign" when dripped on filter paper
56. Which of the following is a characteristic of cerebellar dysfunction?
- A. Ataxia
 - B. Non Intention tremor
 - C. Amnesia
 - D. Apraxia

57. Which of the following points should the nurse include about sublingual nitroglycerin when instructing the patient with angina?
- The drug will cause increased urine output.
 - Store the tablets in a tight light resistant container.
 - Use the tablets only when the pain is very severe.
 - The shelf life of NTG is long; it keeps for up to 2 years.
58. A patient has suffered a C7 spinal cord injury. Which of the following would be the most important nursing intervention during the acute stage of the injury?
- Turning and repositioning every 2 hours.
 - Maintaining proper body alignment.
 - Maintaining a patent airway.
 - Monitoring vital signs.
59. Which one of the following laboratory value is abnormal?
- Serum creatinine - 1.5 mg/dL
 - Fasting blood sugar – 97 mg/dL
 - HDL Cholesterol - 52 mg/dL
 - Total count – 10,000/cmm
60. The initial blood pressure of a patient with a head injury is 124/80 mm of Hg. As his condition worsens, pulse pressure increases. Which of the following blood pressure readings indicates a pulse pressure greater than the initial pulse pressure?
- 102/60 mm of Hg
 - 110/90 mm of Hg
 - 140/100 mm of Hg
 - 160/100 mm of Hg
61. Which of the following is a contraindication to receiving tissue plasminogen activator (tPA) in acute ischemic stroke?
- Recent history of surgery
 - Blood sugar of 75 mg%
 - Glasgow coma score of 10
 - BP of 160/100 mm of Hg
62. The nurse would expect a patient with Jaundice to also complain of
- Pruritus
 - Diarrhea
 - Blurred vision
 - Bleeding tendencies
63. Which one of the following is **NOT** a characteristic feature of arterial ulcer?
- Full thickness wound
 - Well defined edges
 - Very painful
 - Reddish brown pigmentation
64. Which one of the following statements regarding insulin is **WRONG**?

- A. There are three main groups of insulins: Fast-acting, Intermediate-acting and Long-acting
 - B. It can be injected subcutaneously or given intravenously
 - C. Onset of action of NPH human insulin is faster than regular human insulin
 - D. It can be extracted from beef and pork pancreases, but human insulin can be produced synthetically
65. Which one of the following statements regarding the mechanics of breathing is **wrong**?
- A. Normally inspiration is a passive process
 - B. The diaphragm is the chief muscle of inspiration
 - C. The diaphragm contracts and descends toward abdominal cavity during inspiration
 - D. When the intrathoracic volume increases, the intrathoracic pressure falls below atmospheric pressure
66. The most common cause of airway obstruction in the unresponsive victim is occlusion by
- A. vomitus
 - B. oral secretions
 - C. tongue
 - D. foreign body
67. The respiratory center can be severely affected by all of the following **except**
- A. stroke
 - B. hypertension
 - C. head injury
 - D. narcotics
68. The neuromuscular component of the respiratory system includes all of the following **except**
- A. The airways
 - B. The nerves to and from the muscles of respiration
 - C. The muscles of respiration
 - D. The respiratory center in the brain
69. Which one of the following statements is **wrong** regarding child cardiopulmonary resuscitation according to 2010 guidelines?
- A. Compress the chest at a rate of at least 100/min
 - B. The compression depth is 1.5 to 2 cm.
 - C. Minimize interruptions in chest compressions
 - D. Compression ventilation ratio is 30:2 for lone rescuer

70. Which of the following actions is the first priority care for a client exhibiting signs and symptoms of coronary artery disease?
- A. Decrease anxiety
 - B. Enhance myocardial oxygenation
 - C. Administer sublingual nitroglycerin
 - D. Educate the client about his symptoms
71. Which one of the following statements regarding cardiac physiology is wrong?
- A. The left atrium receives oxygenated blood from the lungs.
 - B. The mitral valve has three leaflets.
 - C. The aortic and pulmonary valves have three valve cusps each.
 - D. The right ventricle pumps blood into the pulmonary artery for delivery to the lungs.
72. Which of the following symptoms is most commonly associated with left-sided heart failure?
- A. Crackles in lung
 - B. Arrhythmias
 - C. Hepatic engorgement
 - D. Hypotension
73. All of the following medicines should be taken after food **except**
- A. Thyroxine
 - B. Augmentin
 - C. Spironolactone
 - D. Diclofenac Sodium
74. The standard dose of Epinephrine (Adrenaline) 1:1000 to treat asthma is 0.01 ml per Kilogram of body weight. Which amount of Adrenaline should the nurse administer to a child weighing 20 Kg having asthmatic attack?
- A. 0.10 ml
 - B. 0.20 ml
 - C. 1 ml
 - D. 2 ml
75. Spironolactone (Aldactone) is a/an --- diuretic.
- A. Osmotic
 - B. Potassium sparing
 - C. Loop
 - D. Thiazide

76. What should be the micro drip rate of an IV fluid to finish 500 ml in 10 hours?
A. 10 micro drops/min
B. 25 micro drops /min
C. 50 micro drops/min
D. 100 micro drops/min

77. You are caring for a patient with thrombocytopenia. What is the best way to protect this patient?

- A. Limit visit by family members.
- B. Encourage the client to use a wheelchair.
- C. Use the smallest needle possible for injections.
- D. Maintain accurate fluid intake and output records.

78. Typical sign of thrombophlebitis of lower legs is

- A. Intermittent claudication
- B. Pitting edema of the lower extremities
- C. Severe pain on extension of the extremity
- D. Localized warmth and tenderness

79. What is the most appropriate size of Ryle's tube for feeding an adult patient?

- A. 8 - 10 Fr
- B. 10 - 12 Fr
- C. 12 - 14 Fr
- D. 18 - 20 Fr

80. Which electrolyte imbalance is most common in elderly patients?

- A. Hyponatremia
- B. Hypernatremia
- C. Hypokalemia
- D. Hyperkalemia

81. The myocardial protein that is most sensitive to myocardial injury and is not influenced by other muscle damage is

- A. LDH
- B. Troponin I
- C. CK-MB
- D. myoglobin

82. What supplemental medication is most frequently ordered in conjunction with furosemide (Lasix)?

- A. Chloride
- B. Digoxin
- C. Potassium
- D. Sodium

83. Premature ventricular contractions in post operative cardiac surgery patients are most likely to occur due to alterations in levels of

- A. Sodium
- B. Calcium
- C. Hemoglobin
- D. Potassium

84. Transfusion of one unit of packed red blood cells (240 ml) if given at a rate of 15 drops/min will get over by

- A. 4 hours
- B. 6 hours
- C. 8 hours
- D. 16 hours

85. Which one of the following is the antidote of heparin?

- A. Warfarin Sodium
- B. Protamine sulphate
- C. Acetylsalicylic acid
- D. Atropine sulphate

86. Which type of prosthetic valve requires long term anticoagulation therapy?

- A. Biologic
- B. Bovine
- C. Mechanical
- D. Porcine

87. Toxicity from which of the following medications may cause a client to see a green halo around lights?

- A. Digoxin
- B. Furosemide
- C. Metoprolol
- D. Enalapril

88. Which of the following situations alert you to suspect cardiac arrest?

- A. Patient is cold to touch and restless
- B. Patient suddenly becomes unresponsive
- C. Carotid pulse is feeble
- D. Radial pulse is absent

89. What position should the nurse place the head of the bed in to obtain the most accurate reading of jugular vein distention?
- A. High-Fowler's
 - B. Raised 10 degrees
 - C. Raised 30 degrees
 - D. Supine position
90. The nurse can best ascertain the severity of pain by asking the patient to
- A. describe the pain
 - B. discuss the timing and duration of pain
 - C. rate the pain on a scale of 0-10.
 - D. report relief of pain after treatment.
91. When a patient is receiving an aminoglycoside antibiotic, we should monitor which of the serum values?
- A. Sodium
 - B. Potassium
 - C. Calcium
 - D. Creatinine
92. The nurse is reviewing a patient's arterial blood gas (ABG) report. Which ABG value reflects the acid concentration in blood?
- A. pH
 - B. PaO₂
 - C. PaCO₂
 - D. HCO₃⁻
93. The best measure of the heart's effectiveness as a pump is the
- A. Heart rate
 - B. Systolic blood pressure
 - C. Diastolic blood pressure
 - D. Cardiac output
94. The most appropriate way to collect a urine specimen for culture and sensitivity from a patient with a Foley's catheter is
- A. clamp the catheter, detach the urobag tubing, take urine sample under sterile precautions
 - B. take urine sample under sterile precautions, from the urobag
 - C. clamp the catheter, aspirate the collected urine from the catheter hub under sterile precautions

clamp the catheter and remove the catheter, collect urine sample into a sterile container, by releasing the clamp

95. Which one of the following is the best measure to determine long term control of blood sugar in a patient with diabetes mellitus?

- A. Glucose tolerance test (GTT)
- B. Fasting blood sugar (FBS)
- C. Post prandial blood sugar (PPBS)
- D. Glycosylated hemoglobin (HbA_{1c})

96. Which of the following is the gold standard test for confirming the position of a nasogastric tube?

- A. Capnography
- B. Auscultation
- C. P^H testing
- D. Radiography

97. Which one of the following assessment would the nurse perform when assessing an ataxic patient's ability to walk?

- A. Kernig's test
- B. Romberg's test
- C. Mini mental status examination
- D. Hoffmann's test

98. At what rate (macrodrop/min) should the nurse start an intravenous infusion if the order is for 1gm of vancomycin to be given in 180 ml of 5% dextrose over an hour? The tubing delivers 15 drops/ml.

- A. 15/min B 30/min C 45/min D 60/min

99. You are preparing a dose of Amoxicillin for a 3-year old child weighing 15 Kg. The dosage prescribed is 50 mg/Kg/day in divided dose every 8 hours. The concentration of the drug is 250 mg/5ml. How many ml will you administer/dose?

- A. 2.5 ml B 3 ml C 4.5 ml D 5 ml

100. The nurse is preparing to administer 0.1 mg of Digoxin intravenously. The available concentration is 0.5mg in 2ml. How many milliliters should the nurse administer?

- A. 0.5 ml B 0.4 ml C 0.3 ml D 0.2 ml

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Answer Key for : OMR

1. B
2. D
3. B
4. D
5. D
6. C
7. D
8. D
9. B
10. D
11. C
12. D
13. A
14. C
15. D
16. B
17. B
18. D
19. C
20. A
21. D
22. A
23. A
24. C
25. B
26. A
27. C
28. A
29. A
30. A
31. B
32. C
33. A
34. B
35. C
36. C
37. B
38. A
39. B
40. A
41. D

42. B
43. B
44. A
45. A
46. C
47. B
48. A
49. C
50. A
51. B
52. C
53. B
54. C
55. B
56. A
57. B
58. C
59. A
60. D
61. A
62. A
63. D
64. C
65. A
66. C
67. B
68. A
69. B
70. B
71. B
72. A
73. A
74. B
75. B
76. C
77. C
78. D
79. C
80. A
81. B
82. C
83. D
84. A
85. B
86. C
87. A

- 88. B
- 89. C
- 90. C
- 91. D
- 92. A
- 93. D
- 94. C
- 95. D
- 96. D
- 97. B
- 98. C
- 99. D
- 100. B