

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

ENTRANCE EXAMINATION: NOVEMBER 2014

**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. 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
2. Which one of the following is NOT a function of facial nerve?
A. Controls voluntary movements for facial expression
B. Controls involuntary movements for facial expression
C. Controls jaw movement
D. Taste sensation on anterior 2/3 of tongue
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
B. C. Epilepsy D. Cerebral palsy
4. Taste buds are innervated by _____ cranial nerve/s?
A. Glossopharyngeal B. Vagus
B. Hypoglossal D. all of the above
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. Collapsing pulse (water hammer pulse) is most commonly seen in
A. Mitral regurgitation
B. Mitral stenosis
C. Aortic regurgitation
D. Aortic stenosis

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. Which brain structure is most responsible for our balance, posture and muscle tone?
- A. Medulla oblongata
 - B. Cerebellum
 - C. Reticular system
 - D. Pons
13. The Cerebro Spinal Fluid flows in the space between the Arachnoid and the
- A. Piamater
 - B. Duramater
 - C. Ligamentum Flavum
 - D. Periosteum

14. A condition, causing the affected person to be unable to understand or comprehend the language with intact repetition is termed as
- A. Motor aphasia
 - B. Global aphasia
 - C. Sensory aphasia
 - D. Conduction aphasia
15. What instruction is most appropriate in patient with trigeminal neuralgia to prevent triggering the pain?
- A. Drink iced foods
 - B. Avoid oral hygiene
 - C. Apply warm compresses
 - D. Chew on the unaffected side
16. Which one of the following is **WRONG** regarding Diazepam (Valium)?
- A. Diazepam is available as 5mg/ml in 2ml ampoule, and 10 ml vials
 - B. should be injected slowly, taking at least one minute for each 10 mg
 - C. is available for oral, parenteral and rectal administration
 - D. Tab. Diazepam may be taken with or without food.
17. Interventions to decrease increased intracranial pressure include all of the following **except**
- A. Inj. Mannitol
 - B. Hypoventilation
 - C. Inj. Dexamethasone
 - D. Neutral neck position
18. Which of the following is an assessment priority in a patient with a suspected cervical spinal cord injury?
- A. Abdominal assessment
 - B. Cardiac assessment
 - C. Neurological assessment
 - D. Respiratory assessment
19. The most common cause of dementia in the elderly population is
- A. Head trauma
 - B. Vascular disease
 - C. Alzheimer's disease
 - D. Parkinson's disease
20. The electrolyte that plays an important role in the coagulation cascade is
- A. Calcium
 - B. Sodium
 - C. Potassium
 - D. Magnesium

21. Romberg's test assesses which of the following?
- A. speech
 - B. gait
 - C. coordination
 - D. Balance
22. 'Ringing in the ears' is otherwise termed as
- A. Tinnitus
 - B. Trigeminal neuralgia
 - C. Meniere's disease.
 - D. Tenesmus
23. Which of the following heart valve disease is frequently associated with the arrhythmia, atrial fibrillation?
- A. Mitral
 - B. Tricuspid
 - C. Aortic
 - D. Pulmonic
24. Primary responsibility of the nurse during generalized tonic clonic seizure is
- A. determining whether an aura was experienced
 - B. inserting a plastic airway between the teeth
 - C. clearing the immediate environment for safety
 - D. administering the prescribed antiepileptic drug
25. Which one of the following assessment is for assessing a patient's cranial nerve function?
- A. Assessing Hand grip
 - B. Testing Gag reflex
 - C. Testing orientation to time, place and person
 - D. 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?
- A. Head ache
 - B. Shortness of breath
 - C. Bradycardia
 - D. 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
- A. 2-3 cm
 - B. 4-5 cm
 - C. 5-7 cm
 - D. 8-10 cm
28. The 'p' wave in the ECG represents
- A. Depolarization of Atria.
 - B. Repolarisation of Atria.
 - C. Contraction of Atria.
 - D. Relaxation of Atria.

29. If patient is spinal cord injured (SCI), at or above thoracic vertebrae level 6 (T6), the nurse must
- clamp the urinary catheter intermittently
 - watch for autonomic dysreflexia
 - give limited fluid intake
 - watch for respiratory depression
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
- Tonic-clonic seizure
 - Decrease in intelligence
 - Mask like face
 - 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. Stimulation of the Vagus nerve results in
- A. tachycardia
 - B. slowing of heart rate
 - C. Dilation of bronchioles
 - D. Coronary artery vasodilation
41. Which laboratory value of serum is most useful in assessing liver function?
- A. Potassium
 - B. Sodium
 - C. Creatinine
 - D. Protein
42. Jarring of the brain within the skull with temporary loss of normal brain function is called
- A. Contusion
 - B. Hematoma
 - C. Concussion
 - D. Confusion
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. Muscle strength/Motor power grade 3 means
- A. Visible muscle movement, but no movement at the joint
 - B. Movement at the joint, but not against gravity
 - C. Movement against gravity, but not against added resistance
 - D. Movement against resistance, but less than normal
52. 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

53. The normal fasting blood sugar in an adult is ----- mg/100ml
- 60 - 100
 - 70 - 110
 - 80 - 120
 - < 140
54. Which of the following statements regarding saturated fat is wrong?
- All Vegetable oils are unsaturated.
 - Intake increases coronary risk.
 - All Animal fats are saturated.
 - Solidifies in cold environment.
55. Which one of the following statements about cerebrospinal fluid (CSF) is wrong?
- Normal volume in adult is 120-150 ml
 - Normally CSF may contain up to 5 polymorphonuclear leucocytes
 - CSF pressure as measured by lumbar puncture is more when sitting up
 - Cerebrospinal mixed with blood forms a "halo sign" when dripped on filter paper
56. Which of the following is a characteristic of cerebellar dysfunction?
- Ataxia
 - Non Intention tremor
 - Amnesia
 - 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?
- A. 102/60 mm of Hg
 - B. 110/90 mm of Hg
 - C. 140/100 mm of Hg
 - D. 160/100 mm of Hg
61. Which of the following is a contraindication to receiving tissue plasminogen activator (tPA) in acute ischemic stroke?
- A. Recent history of surgery
 - B. Blood sugar of 75 mg%
 - C. Glasgow coma score of 10
 - D. BP of 160/100 mm of Hg
62. The nurse would expect a patient with Jaundice to also complain of
- A. Pruritus
 - B. Diarrhea
 - C. Blurred vision
 - D. Bleeding tendencies
63. Which one of the following is **NOT** a characteristic feature of arterial ulcer?
- A. Full thickness wound
 - B. Well defined edges
 - C. Very painful
 - D. Reddish brown pigmentation
64. Virchow's triad of deep venous thrombosis include all of the following **except**
- A. venous stasis
 - B. endothelial damage
 - C. hypercoagulable state
 - D. pulselessness
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 heart.
 - 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
 - B. Arrhythmias
 - C. Hepatic engorgement
 - D. Hypotension
73. All of the following signs and symptoms are associated with emphysema **except**
- A. Purse-lipped breathing
 - B. Barrel-shaped chest
 - C. Usually thin appearance
 - D. Continuous cough with copious sputum

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. Damage to which part of the brain results in motor aphasia?
- A. Parietal lobe
 - B. Occipital lobe
 - C. Temporal lobe
 - D. Frontal lobe
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
 - D. 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 symptoms usually signifies rapid expansion and impending rupture of an abdominal aortic aneurysm?
- A. Lower back pain
 - B. Absent pedal pulses
 - C. Angina
 - D. Abdominal pain
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. D
2. C
3. B
4. A
5. D
6. C
7. D
8. D
9. B
10. D
11. C
12. B
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. B
30. A
31. B
32. C
33. A
34. B
35. C
36. C
37. B
38. A
39. B
40. B
41. D

42. C
43. B
44. A
45. A
46. C
47. B
48. A
49. C
50. A
51. C
52. B
53. B
54. A
55. B
56. A
57. B
58. C
59. A
60. D
61. A
62. A
63. D
64. D
65. A
66. C
67. B
68. A
69. B
70. B
71. B
72. A
73. D
74. B
75. B
76. C
77. C
78. D
79. D
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. A
- 97. B
- 98. C
- 99. D
- 100. B