



**SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL
SCIENCES & TECHNOLOGY,
THIRUVANANTHAPURAM—695 011**

ENTRANCE EXAMINATION: ACADEMIC SESSION JANUARY 2019

PROGRAMME: DIPLOMA IN CARDIOVASCULAR AND THORACIC/NEURO NURSING

Time: 90 min

Max.Marks: 100

(Select the most appropriate answer)

(Each question carries one mark)

1. Which one of the following glands is involved in diabetes insipidus?
 - A. Liver
 - B. Islets of Langerhans
 - C. Adrenal gland
 - D. Pituitary gland

2. The recommended ratio of external chest compression to ventilation in two rescuer cardiopulmonary resuscitation (CPR) of a child, as per 2015 American Heart Association guidelines is
 - A. 5:1
 - B. 30:2
 - C. 15:2
 - D. 15:1

3. The most common cause of acute seventh cranial nerve paralysis
 - A. Spastic cerebral palsy
 - B. Bell's palsy
 - C. Dyskinetic cerebral palsy
 - D. Erb's Palsy

4. Which one of the following sense organs has the maximum number of cranial nerve supply?
 - A. Eyes
 - B. Ears
 - C. Nose
 - D. Tongue

5. Defibrillation is a treatment modality in which one of the following arrhythmias?
 - A. Ventricular Asystole
 - B. Atrial fibrillation
 - C. Pulseless Electrical Activity
 - D. Pulseless Ventricular Tachycardia

6. Which is the correct order of wearing personal protective equipment?
- A. Gloves, gown, goggles, mask
 - B. Gown, mask, goggles, gloves
 - C. Goggles, gown, mask, gloves
 - D. Mask, gown, goggles, gloves
7. Which one of the following values of cerebrospinal fluid (CSF) decreases during bacterial meningitis?
- A. sugar
 - B. cells
 - C. protein
 - D. chloride
8. The most common presenting symptom of spinal cord tumor is -----.
- A. Paresthesia
 - B. Pain
 - C. Spasticity
 - D. Areflexia
9. Glycosylated hemoglobin (HbA1c) is measured to detect
- A. Diabetes control
 - B. Severe anemia
 - C. Bleeding disorders
 - D. Cardiac disorders
10. An arrhythmia which is a normal response to exercise, emotion or stress
- A. Sinus arrhythmia
 - B. Sinus tachycardia
 - C. Sinus bradycardia
 - D. Sinus pause
11. The nerve involved in Bell's palsy is
- A. Facial
 - B. Glossopharyngeal
 - C. Optic
 - D. Trigeminal
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 largest fontanelle is
- A. Bregma
 - B. Lambda
 - C. Pterion
 - D. Asterion

14. Glossitis is the inflammation of the

- A. ears
- B. eyes
- C. tongue
- D. cheeks

15. The second intercostal area on the right side of sternum for auscultating valve sounds is known as

- A. Aortic area
- B. Pulmonic area
- C. Tricuspid area
- D. Mitral area

16. A patient with deep vein thrombosis needs Inj. Heparin infusion 1000 units per hour via an infusion pump. The nurse prepares 50 ml heparin solution containing 5000 units of heparin. She should set the infusion pump to provide how many ml per hour?

- A. 50
- B. 20
- C. 10
- D. 5

17. Which of the following regarding cerebrospinal fluid (CSF), is not elevated in bacterial meningitis?

- A. Cell count
- B. Sugar
- C. Pressure
- D. Protein

18. The recommended position for a patient on mechanical ventilator is

- A. Supine
- B. prone
- C. semi Fowler's
- D. Fowler's

19. Acute myocardial infarction is seen in electrocardiogram as changes in

- A. 'T' wave
- B. 'PR' interval
- C. 'QRS' complex
- D. 'ST' segment

20. The electrolyte that plays an important role in the clotting of blood is

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

21. Which of the following group of drugs **does not** affect thrombotic process?
- A. Platelet inhibitors
 - B. anticoagulants
 - C. thrombolytics
 - D. antihypertensives
22. When auscultating for heart sounds, the first heart sound S₁ is best heard at the
- A. Apex of the heart
 - B. Base of the heart
 - C. Aortic area
 - D. Second left intercostal space, left sternal border
23. Popular grafts used to bypass the obstruction in the coronary artery include all the following **except**
- A. Synthetic graft
 - B. Saphenous vein graft
 - C. Internal mammary artery graft
 - D. Radial artery graft
24. Which of the following is the best to evaluate perfusion of vital body organs?
- A. Heart rate
 - B. Systolic blood pressure
 - C. Level of consciousness
 - D. Mean arterial pressure
25. Which of the following neurological assessment tests cranial nerve function?
- A. Assessing Hand grip
 - B. Testing Gag reflex
 - C. Testing orientation
 - D. Checking arm drift
26. Which of the following is a side effect of Nitroglycerin?
- A. Head ache
 - B. Dyspnea
 - C. Bradycardia
 - D. Hypertension
27. The primary regulator of our body's internal environment is?
- A. Renal system
 - B. Respiratory system
 - C. Nervous system
 - D. Cardiovascular system
28. The 'P' wave in the ECG represents
- A. Depolarisation of atria
 - B. Repolarisation of atria
 - C. Depolarisation of ventricles
 - D. Contraction of atria

29. Which of the following is a cranial nerve disease that causes rotational vertigo?
- A. Bell's palsy
 - B. Meniere's disease
 - C. Trigeminal neuralgia
 - D. Acoustic neuroma
30. An acute change in cognition and a disturbance of consciousness in critically ill patients that develops over a short period is
- A. disorientation
 - B. dysmetria
 - C. delusion
 - D. delirium
31. A difficulty in swallowing is termed as
- A. dysphagia
 - B. dysphasia
 - C. gagging
 - D. deglutition
32. How many pairs of spinal nerves are there in a human being?
- A. 33
 - B. 31
 - C. 10
 - D. 12
33. The skull is composed of --- bones of the cranium and 14 bones of the face.
- A. 4
 - B. 6
 - C. 8
 - D. 10
34. A nurse is providing discharge instructions about digoxin. She should instruct the patient to withhold the digoxin if he/she has
- A. Constipation
 - B. Blurred vision
 - C. Persistent hiccups
 - D. Increased urinary output
35. Which of the following statements about angina pectoris is **wrong**?
- A. It is chest pain or discomfort caused by myocardial ischemia
 - B. Occurs when myocardial oxygen demand exceeds the supply
 - C. Occurs because of coronary atherosclerotic heart disease
 - D. Will not occur in patients with normal coronary arteries
36. The most common metabolic causes of altered level of consciousness seen in a hospitalized person include all the following **except**
- A. Hypoxia
 - B. Hypoglycemia
 - C. Hypokalemia
 - D. Hypoventilation

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. 27
 - D. 50
38. Bone loss in hospitalized older adults may be further exacerbated by which one of the following?
- A. Bed rest
 - B. Dehydration
 - C. Infection
 - D. Delirium
39. The most effective drug during cardiac arrest is
- A. Atropine
 - B. Sodium bicarbonate
 - C. Calcium Chloride
 - D. Adrenaline
40. The cranial nerve responsible for pupillary constriction
- A. Olfactory
 - B. Optic
 - C. Oculomotor
 - D. Trigeminal
41. The maximum volume of air that can be released from the lungs by forceful expiration after deepest inspiration is called
- A. Vital Capacity
 - B. Total Lung Capacity
 - C. Tidal Volume
 - D. Expiratory reserve volume
42. Ventricular fibrillation is a chaotic rhythm characterized by quivering of the ventricles that result in
- A. Fainting
 - B. Myocardial infarction
 - C. Rapid respiration
 - D. Total loss of cardiac output
43. When caring for a patient with Methicillin Resistant Staphylococcus Aureus (MRSA), the nurse should wear
- A. surgical goggles
 - B. rebreather mask
 - C. gown and gloves
 - D. sterile isolation suit

44. Which one of the following statements regarding oral anticoagulant therapy is correct?
- A. Excessive alcohol intake increases the risk of bleeding
 - B. Skipping one dose of the medicine could worsen the condition
 - C. If one dose is missed, double the next dose
 - D. Medicine can be stopped when the patient feels better/ when there are no symptoms
45. Coronary arteries originate from
- A. Left ventricle
 - B. Myocardium
 - C. Arch of aorta
 - D. Behind Aortic valve
46. When a post-operative thoracotomy patient shows anxiety, restlessness and agitation of new onset, the nurse should do all the following **except**
- A. Administer SOS sedatives
 - B. Position for comfort and optimal ventilation
 - C. Provide appropriate pain relief
 - D. Encourage splinting of incision
47. Sensory aphasia is inability to
- A. speak
 - B. understand spoken language
 - C. read
 - D. remember
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
49. The coronary arteries get blood supply during
- A. Ventricular contraction
 - B. Atrial contraction
 - C. Ventricular diastole
 - D. Ventricular systole
50. Which of the following arteries are not supplying brain?
- A. Right Internal carotid artery
 - B. Left Internal carotid artery
 - C. Vertebral artery
 - D. External carotid artery

51. For a patient with left middle cerebral artery infarction, expect evidence of -----.
- Left foot drop
 - Aphasia
 - right foot drop
 - Dementia
52. Salbutamol is primarily a/an
- Bronchodilator
 - Bronchoconstrictor
 - Vasodilator
 - vasoconstrictor
53. All the following are part of head ache management in a patient with migraine **except**
- Avoid sleep pattern changes as much as possible
 - Do not skip meals
 - Avoid caffeine intake
 - Avoid physical exercise as it may increase migraine episodes
54. Fluctuating muscle weakness that worsens with effort or exercise and improves with rest is seen in
- Congestive heart failure
 - Myasthenia Gravis
 - Multiple sclerosis
 - Guillain Barre Syndrome
55. Which one of the following pair is wrongly matched?
- Pneumothorax - Air
 - Pleural effusion – Fluid
 - Chylothorax – Pus
 - Hemothorax – Blood
56. Which of the following statement is **wrong** regarding 'IV push'?
- Refers to the administration of a medication from a syringe directly into an ongoing IV infusion
 - It is given directly into a vein by way of an intermittent access device
 - It should be diluted as indicated
 - It should be given fast
57. Which of the following statements is **wrong** about pupillary assessment?
- Normally, the pupils are slightly ovoid in shape
 - When light is shown to one eye, both pupils constrict
 - Normally, the pupils are equal in size.
 - The average diameter of each pupil is 3.5mm
58. Which one of the following foods can be tried for patients with dysphagia?
- Thin liquids
 - Sticky foods
 - Thickened juice
 - Dry foods

59. Which one of the following laboratory value is abnormal?
- A. Serum creatinine - 1.8 mg/dL
 - B. Fasting blood sugar – 100 mg/dL
 - C. HDL Cholesterol - 52 mg/dL
 - D. Total count – 8000/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. 134/90 mm of Hg
 - C. 140/100 mm of Hg
 - D. 152/90 mm of Hg
61. Which of the following should be the first monitor attached to the patient on arrival in the post anesthesia observation area?
- A. Noninvasive blood pressure
 - B. Temperature monitoring device
 - C. Pulse oximeter
 - D. Cardiac monitor
62. Which is the earliest and the most sensitive indicator of neurological changes in the unconscious patient?
- A. Abnormal Renal function values
 - B. Abnormal liver function values
 - C. Change in vitalsigns
 - D. Pupillary signs
63. Which laboratory value of serum is most useful in assessing liver function?
- A. Potassium
 - B. Sodium
 - C. Creatinine
 - D. Protein
64. Accumulation of blood between the arachnoid and duramater is known as
- A. Subdural hematoma
 - B. Epidural hematoma
 - C. Subarachnoid hemorrhage
 - D. Intra cranial hemorrhage
65. Which of the following is a major cause of postoperative hypoxemia?
- A. Atelectasis
 - B. Hyperventilation
 - C. High inspired oxygen concentration
 - D. Hypothermia

66. Which one of the serum electrolytes has the maximum normal value in the blood?
- A. Sodium
 - B. Chloride
 - C. Potassium
 - D. Calcium
67. Which of the following areas of pain/referred pain is not matching with the corresponding organ?
- A. Heart: left arm
 - B. Kidney stone: side and back, below the ribs
 - C. Stomach: epigastrium
 - D. Appendix: left lower abdominal quadrant
68. Which of the following agents is associated with the lowest incidence of postoperative nausea and vomiting?
- A. Thiopental
 - B. Morphine sulphate
 - C. Ketamine
 - D. Propofol
69. During the removal of a nasogastric tube, the nurse instructs the patient to
- A. Inhale
 - B. Exhale slowly
 - C. Hold breath
 - D. Exhale deeply
70. The most common electrolyte abnormality encountered in clinical practice is
- A. Hypokalemia
 - B. Hyperkalemia
 - C. Hyponatremia
 - D. Hypernatremia
71. Stroking the lateral aspect of the sole with a moderately sharp object, from the heel to the ball of the foot is to elicit
- A. Homan's sign
 - B. Achilles reflex
 - C. Babinski reflex
 - D. Knee reflex
72. Which of the following conversion is correct?
- A. One milligram = 1000 microgram
 - B. One milligram = 0.01 gram
 - C. One milligram = 100000 nanogram
 - D. One gram = 100000 microgram

73. All the following medicines should be taken before food **except**
- Thyroxine
 - Rifampicin
 - Omeprazole
 - 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 an acute asthmatic attack?
- 0.10 ml
 - 0.20 ml
 - 1 ml
 - 2 ml
75. Potassium replacement is indicated when a patient is receiving
- Osmotic diuretic
 - Spironolactone
 - Furosemide
 - Amiloride
76. Which of the following is the most common presenting complaint of acute myocardial infarction?
- Chest pain
 - Epigastric pain
 - Dyspnea
 - Pain that intensifies with a deep breath
77. Normal sounds that are heard over the posterior chest between the scapula on auscultation
- bronchial
 - bronchovesicular
 - Vesicular
 - rales
78. Which of the following statements regarding endotracheal suctioning in children is **wrong**?
- It is indicated when there is audible or visible secretion in the endotracheal tubing
 - It is indicated when there is arterial desaturation
 - It should be performed after chest physiotherapy
 - The instillation of physiological saline should be a routine
79. A patient shows a new slight facial droop and the patient's right arm is weaker than the left. A priority intervention should be
- Obtain a serum glucose level
 - Obtain a full set of vital signs
 - Initiate the stroke protocol
 - Initiate the code blue response team

80. Which sensation is not a function of cranial nerves?
- A. Touch
 - B. Hearing
 - C. Sight
 - D. Smell
81. Which of the following is an effective strategy to prevent ventilator associated pneumonia in pediatric patients?
- A. Hourly oral hygiene
 - B. Changing the ventilator circuit daily
 - C. Rinsing the mouth with 0.1% chlorhexidine every shift
 - D. Elevate the head of the bed 30 - 40 degree
82. The biomarker that is most specific for myocardial damage is
- A. Creatine kinase (CK)
 - B. CK -MB
 - C. Troponin I
 - D. myoglobin
83. Which of the following drugs is not ototoxic?
- A. Amikacin
 - B. Furosemide
 - C. Gentamycin
 - D. Ampicillin
84. Transfusion of 360 ml of blood if given at a rate of 15 drops/min will get over by (drop factor = 15gtts/mL)
- A. 4 hours
 - B. 5 hours
 - C. 6 hours
 - D. 8 hours
85. Which one of the following provides short term protection against leptospirosis in high risk environment?
- A. Tetracycline
 - B. Doxycycline
 - C. Acetylsalicylic acid
 - D. Ampicillin
86. Which of the following is a **wrong** statement regarding Nipah virus?
- A. Nipah virus is a zoonotic virus
 - B. The source of Nipah virus outbreak in Kerala is fruit bats
 - C. It can be transmitted through contaminated food
 - D. The infected patient will always be symptomatic
87. The only arteries of the body to fill during diastole
- A. Hepatic
 - B. Coronary
 - C. Internal carotid
 - D. External carotid

88. Which one of the following brain tumors affects the master gland?
- A. Meningioma
 - B. Astrocytoma
 - C. Acoustic neuroma
 - D. Pituitary tumor
89. Involuntary loss of urine during coughing, sneezing or laughing
- A. functional incontinence
 - B. neurogenic bladder
 - C. stress incontinence
 - D. reflex incontinence
90. Which one of the following is considered as last resort antibiotic?
- A. Polymyxin
 - B. Methicillin
 - C. Vancomycin
 - D. Carbapenem
91. Catheter associated urinary tract infection (CAUTI) rates are reported as number of CAUTIs per 1000 catheter days. To calculate this rate, divide the number of CAUTIs over a specified period by the number of catheter days during the same period and
- A. multiply the quotient by 100
 - B. multiply the quotient by 1000
 - C. divide the quotient by 100
 - D. divide the quotient by 1000
92. The nurse is reviewing a patient's arterial blood gas (ABG) report. Which ABG value reflects ventilation?
- A. pH
 - B. PaO₂
 - C. PaCO₂
 - D. HCO₃⁻
93. To calculate body mass index (BMI) divide
- A. Height in inches by weight in kilogram
 - B. Height in meters squared by weight in kilogram
 - C. Weight in pounds by height in meters squared
 - D. Weight in kilogram by height in meters squared
94. Food restrictions of a patient with renal disease include all the following **except**
- A. Protein
 - B. Fat
 - C. Potassium
 - D. Salt
95. Which of the following blood components has the longest life span?
- A. Neutrophils
 - B. Lymphocytes
 - C. Platelets
 - D. Red blood corpuscles

96. Which one of the following fibrinolytic drugs is given as a single bolus over five seconds?
- A. Alteplase
 - B. Adenosine
 - C. Tenecteplase
 - D. Streptokinase
97. How many milliliters of Inj. Furosemide need to be loaded to give 5mg intravenously to a child (The available preparation is a 2 ml ampoule; each ml contains 10 mg)?
- A. 1
 - B. 0.75
 - C. 0.5
 - D. 0.25
98. In the above question 97, if the 2ml Furosemide is diluted to make 10 ml, how many ml of the diluted solution will you take to give 5mg intravenously
- A. 3
 - B. 2.5
 - C. 1.5
 - D. 1.25
99. Which of the following is **wrong** with regard to chest tube insertion?
- A. Larger tubes are used to drain blood
 - B. Smaller tubes are used to remove air
 - C. The insertion site for liquid drainage is near the 4th intercostal space on the mid-axillary line
 - D. The insertion site for air removal is near the 2nd intercostal space along the mid-clavicular line
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