

SCHOOL OF HEALTH AND NATURAL SCIENCES
EXAMINATION FOR DIPLOMA IN NURSING YEAR 1
SUMMATIVE EXAM (SEMESTER 2)
ACADEMIC SESSION 2012; SEMESTER 1
SND 1211: CARDIOVASCULAR NURSING
AUGUST 2012

TIME: 2 Hours

INSTRUCTIONS TO CANDIDATES

This question booklet contains two sections.

Section A
Fifty multiple choice questions (MCQ)

Answer all questions in Section A using the multiple choice answer sheet provided

Section B
One Short Answer Question (SAQ)

Answer ALL questions in Section B using the answer booklets provided.

At the end of the examination, all the answer booklets, multiple choice answer sheets and the examination booklet must be fastened and placed in the box provided.

[This paper contains FIFTY MCQ and ONE SAQ question
printed in FOURTEEN pages]

Section A: 50 marks

Answer ALL Multiple Choice Questions

1. A nurse is trying to analyze an ECG rhythm strip on an assigned client and asks another nurse how much time each small box on the ECG paper represents. The second nurse responds that each small box measures
 - A. 0.02 seconds
 - B. 0.04 seconds
 - C. 0.20 seconds
 - D. 0.40 seconds

2. A nurse is admitting a client with myocardial infarction to the coronary care unit. In delivering care to the client the nurse should
 - A. Administer oxygen at a rate of 6 litres per minute by nasal cannula
 - B. Infuse intravenous (IV) fluid at a rate of 150 mL per hour
 - C. Begin thrombolytic therapy
 - D. Place client on continuous cardiac monitoring

3. A nurse inquires about a smoking history while conducting a hospital admission assessment for a client with coronary artery disease. The most important item for the nurse to assess is the
 - A. Number of packs and years
 - B. Brand of cigarettes used
 - C. Desire to quit smoking
 - D. Number of past attempts to quit smoking

4. A nurse in an ambulatory care clinic takes a client's blood pressure (BP) in the left arm and notes that it is 200/118mmHg. The nurse would
 - A. Notify the physician
 - B. Inquires about the presence of kidney disorders
 - C. Check the client's blood pressure in the right arm
 - D. Recheck the pressure in the same arm within 30 seconds

5. At 0730hours, a nurse receives a verbal order for a cardiac catheterization to be completed on a client at 1400 hours. The action that the nurse should initiate first is
- A. Initiate Nil by Mouth status for the client
 - B. Teach the client about the procedure
 - C. Start an intravenous (IV) infusion of 0.9% Nacl
 - D. Ask the client to sign a consent form
6. Aspirin is prescribed for a client with coronary artery disease before percutaneous transluminal coronary angioplasty (PTCA). The nurse administers the medication, knowing that it is prescribed to
- A. Prevent post procedure hyperthermia
 - B. Relieve post procedure pain
 - C. Prevent thrombus formation
 - D. Prevent inflammation of the puncture site
7. A coronary care unit (CCU) nurse is caring for a client admitted with acute myocardial infarction (MI). The most common complication of MI is
- A. Cardiogenic shock
 - B. Cardiac dysrhythmias
 - C. Congestive heart failure
 - D. Recurrent myocardial infarction
8. A nurse notes that a client, who experienced a myocardial infarction (MI) 3 days ago, seems unusually fatigued. Upon assessment, the nurse finds that the client is dyspneic with activity, has a heart rate of 110 beats per minute and has generalized oedema. The action by the nurse that is most appropriate is
- A. Administering high flow oxygen
 - B. Encourage the client to rest more
 - C. Continue to monitor the client's heart rhythm
 - D. Compare the client's admission weight with the client's current weight

9. A nurse in the emergency is assessing a client with chest pain. The findings that determines that the pain is caused by myocardial infarction is
- A. The pain, unrelieved by nitroglycerine, was relieved with morphine sulphate
 - B. The pain was described as burning and pressing
 - C. The client experienced no nausea or vomiting
 - D. The client reports that the pain began while pushing a lawnmower
10. A nurse is planning to care for a client with pulmonary oedema. In order to reduce the client's cardiac workload the nurse should
- A. Elevate the legs when in bed
 - B. Encourage client to sleep in supine position
 - C. Use seasonings to improve the taste of food
 - D. Use the bedside commode for stools
11. A nurse is teaching a client with cardiomyopathy about home care safety measures. The most important measure to ensure client's safety is
- A. To assess for pain
 - B. To avoid over the counter medications
 - C. To avoid administering vasodilators
 - D. To move slowly from sitting to a standing position
12. A nurse is caring for a client following a cardiac catheterization, using a femoral artery approach. The nursing action that is unsafe for the client is
- A. Placing the client's bed in Fowler's position
 - B. Encouraging the client to increase fluid intake
 - C. Instructing the client to move the toes when checking circulation, motion and sensation
 - D. Resuming prescribed pre catheterization medications
13. A patient diagnosed with abdominal aortic aneurysm is admitted for surgery. The nurse suspects rupture of the aneurysm when
- A. Patient complains of sudden severe back pain
 - B. Patient complains of dyspnea and palpitation
 - C. Patient develops a pulsatile mass in the preumbilical area
 - D. Patient develops hypotension and bradycardia

14. A nurse teaches the client with hypertension to recognize the signs and symptoms that may occur during periods of an elevated blood pressure. The nurse determines that the patient needs additional teaching when he states about
- A. Dizziness
 - B. Epistaxis
 - C. Feeling of fullness in the head
 - D. Blurred vision
15. The nursing measures that will be appropriate for a patient with acute lower extremity deep vein thrombosis
- A. Keeping the leg in dependant situation to promote circulation
 - B. Applying elastic stockings to the affected extremity
 - C. Encouraging ambulation to promote venous return
 - D. Administering anticoagulant as prescribed
16. A client is scheduled for angiography using a radio paque dye. The most critical information that the nurse should check before the procedure is
- A. Vital signs
 - B. Intake and output
 - C. Height and weight
 - D. Allergic to iodine or shellfish
17. A nurse is caring for a hospitalised child with the diagnosis of rheumatic fever who has developed carditis, and the mother asks the nurse to explain the meaning of carditis. The nurse plans to respond that carditis is a complication of rheumatic fever and results in
- A. Inflammation of the heart primarily the mitral valve
 - B. Involuntary movements affecting the legs, arms, and face
 - C. Tender painful joints, especially in the elbows, kness, ankles, and wrists
 - D. Red skin lesions that start as flat or slightly raised macules usually over the truck and that spread peripherally

18. A nurse is assisting in preparing a plan of care for a client who is admitted to the hospital with the diagnosis of congestive heart failure (CHF). The following should be included EXCEPT
- A. Elevating the head of the bed
 - B. Providing oxygen during stressful periods
 - C. Limiting activities of daily living
 - D. Waking the client for meals to ensure adequate nutrition
19. A client is admitted to the emergency room with complaints of severe, radiating chest pain. The client is extremely restless, frightened and dyspnoeic. The initial action that should be taken by the nurse is
- A. Obtain a 12 lead electrocardiogram
 - B. Apply the oxygen to the client
 - C. Call radiology to order the chest radiograph
 - D. Call the laboratory to order the stat blood work
20. A client is diagnosed with thrombophlebitis of the left leg. The nurse documents in the nursing care plan that client should be placed on bed rest with
- A. The left leg kept flat
 - B. Bathroom priviledges
 - C. Elevation of the left leg
 - D. The left leg in a dependant position
21. A 86 year old patient with a newly diagnosed abdominal aortic aneurysm wonders if he will need surgery to repair the aneurysm, eventhough he feels fine. The nurse's response is based on the knowledge of which of the following?
- A. The risk of surgical repair is lower than the risk that the aneurysm will rupture
 - B. Opening the abdomen for the surgical procedure greatly increases the risk of rupture
 - C. Surgery is indicated for Type A aneurysm
 - D. A percutaneously inserted endovascular stent may be considered

23. A nurse is evaluating a client's understanding of health measures to prevent coronary artery disease. The statement that indicates a need for teaching is
- A. "I should restrict my intake of fried foods"
 - B. "I could have a heart attack if I exercise"
 - C. "I should take my medicines at the same time each day"
 - D. "If I quit smoking, I will eventually lose my risk for heart disease caused by smoking"
24. A client with an order for a 12 lead electrocardiogram (ECG) has never had this procedure done before. The statement that effectively reduces the client anxiety is
- A. "It is important to lie still during the procedure"
 - B. "it should take about 30 minutes to complete the ECG tracing"
 - C. "The ECG tells the doctor what might be wrong with your heart"
 - D. "The test is painless and will record the electrical activity of your heart"
25. The plan of care for a client with the diagnosis of acute pulmonary oedema should include strategies for
- A. Reducing anxiety
 - B. Increasing fluid volume
 - C. Decreasing cardiac output
 - D. Promoting a positive body image
26. A nurse is assisting with positioning a client for pericardiocentesis to treat cardiac tamponade. The nurse should place the client
- A. Supine with slight Trendelenburg position
 - B. Lying on the right side with the pillow under the head
 - C. Lying on the left side with a pillow under the chest wall
 - D. Supine with the head of the bed elevated at an angle of 45° to 60°

27. The common symptom in a client with abdominal aortic aneurysm is
- A. Abdominal pain
 - B. Diaphoresis
 - C. Headache
 - D. Upper back pain
28. The condition that most commonly occurs in client with cardiomyopathy is
- A. Heart failure
 - B. Diabetes mellitus
 - C. Myocardial infarction
 - D. Pericardial effusion
29. The action that should be taken by the nurse when administering a new blood pressure medication to a client is to
- A. Administer the medication to the client without explanation
 - B. Inform the client of the new drug only if he asks about it
 - C. Inform the client of the new medication, its name, use, and the side effects
 - D. Administer the medication, and inform the client that the physician will reason for the change in medication later explain the medication
30. Acute pulmonary oedema is usually a result of damage to an area of the heart. The area involved is
- A. Left atrium
 - B. Right atrium
 - C. Left ventricle
 - D. Right ventricle
31. The nurse on a cardiac unit is caring for a client admitted with an acute exacerbation of heart failure. The nurse concludes that the client is developing pulmonary oedema if the patient is
- A. Bradycardia
 - B. Increased urination
 - C. Cough with pink frothy sputum
 - D. Increased sleepiness

32. The nurse is developing a plan for a client who is going home with a new diagnosis of heart failure. The nurse is teaching the client to monitor fluid status. The best instruction to teach the client is

- A. Restrict fluid intake to 800 mls per day
- B. Increase the dose of diuretics if there is decreased urination
- C. Record body weight every day before breakfast and report the weight gain of 3 or more pounds in a week.
- D. Keep track of daily output and call the doctor for it is less than 1L on any day

33. A client is getting ready to go home after the myocardial infarction (MI). The client is asking questions about his medications, and wants to know why metoprolol was prescribed. The nurse's best response is

- A. "Your heart was beating too slowly, and metoprolol increases the heart rate"
- B. "Metoprolol helps to increase the blood supply to the heart by dilating your coronary arteries"
- C. "This medication helps make your heart rate beat stronger to supply more blood to the coronary arteries"
- D. "It slows your heart rate and decreases the amount of work it has to do so it can heal"

34. A nurse is preparing to admit a client with restrictive cardiomyopathy to the hospital for management of worsening heart failure. The appropriate nursing diagnosis is

- A. Fear related to new onset of symptoms
- B. Hopelessness related to lack of cure and debilitating symptoms
- C. Knowledge deficit related to medication regime
- D. Activity intolerance related to decrease cardiac output

35. A client is prescribed sublingual nitroglycerine for the treatment of angina pectoris. The response of the client that indicates that the client understands this medication is
- A. "Will the physician give me a year's supply of nitroglycerine tablets?"
 - B. " I will carry my nitroglycerine tablets in the inside pocket of my jacket, so they are always close"
 - C. "I usually take three of my nitroglycerine tablets at the same time. I find that they work better that way"
 - D. "I have small labelled case for a few nitroglycerine tablets tablets that I carry with me when I go out"
36. A client is at high risk for developing deep vein thrombosis. The manifestations that the nurse assess is for
- A. Absent pulse and pale extremity
 - B. Ulcerated toes and rubor
 - C. Cyanotic extremity and numbness
 - D. Leg swelling and calf pain
37. The laboratory values that is most important to assess and to monitor therapeutic levels of heparin therapy is
- A. Prothrombin time (PT)
 - B. Partial thromboplastin time (PTT)
 - C. Clotting Time
 - D. Bleeding time
38. When educating the client with primary hypertension, the nurse instructs the client to
- A. Take antihypertensive medications when blood pressure is elevated
 - B. Monitor blood pressure annually
 - C. Avoid foods with concentrated sugars
 - D. Have regular eye exams

39. Your client on furosemide (Lasix) therapy demonstrates understanding of how to increase potassium in his diet when he states he will add the following beverages to his diet.
- A. Milk
 - B. Cranberry juice
 - C. Coffee
 - D. Orange juice
40. A client has been admitted for chest pain. Serum enzyme levels are drawn and the results indicate an elevated serum creatine kinase isoenzyme, troponin T. The nurse concludes that these results are compatible with
- A. New onset of myocardial infarction (MI)
 - B. Stable angina
 - C. Unstable angina
 - D. Prinzmetal's angina
41. A client develops bilateral wheezes, orthopnoea and tachypnoea, and the nurse notes the presence of pitting oedema. The nurse should avoid to
- A. Prepare to administer morphine sulphate
 - B. Place the client in high fowlers position
 - C. Elevate the client's legs
 - D. Prepare to administer IV frusemide
42. A physician orders 12 lead electrocardiogram to be performed on a client. The client is concerned about the safety of the test, and the nurse provides information to the client. The following indicates that the client understands the test is
- A. "I cannot breathe while the ECG is running"
 - B. "I should lie still while the ECG is being done"
 - C. "When the ECG begins, I must take a deep breath"
 - D. "If I move when the ECG begins I will be shocked"

43. A client with hypertension has a blood pressure of 170/96mmHg after 6 months of intensive exercise and diet modifications. The nurse advises the client to
- A. To continue current treatment plan as blood pressure is being adequately controlled
 - B. To discontinue current treatment plan as it has not been effective and medications will be required
 - C. To increase his exercise by two fold and continue dietary modifications to attempt to lower blood pressure further
 - D. That medication therapy will likely need to be started along with the exercise and diet program
44. An expected assessment finding in a client with mitral stenosis being admitted for a valve replacement would be
- A. Muffled heart sounds
 - B. S3 and S4 heart sounds
 - C. Diastolic murmur
 - D. Cardiac heave
45. The nurse evaluates her teaching as effective when a client identifies of the following modifiable risk factors for coronary heart disease (CHD) as contributing to the greatest extent?
- A. Obesity
 - B. Diet
 - C. Smoking
 - D. Stress
46. A client has implemented dietary and other lifestyle changes to manage hypertension. The nurse determines that the client has been most successful if the client has a follow up blood pressure reading of
- A. 156/89mmHg
 - B. 128/84mmHg
 - C. 164/90mmHg
 - D. 140/94mmHg

47. A nurse is evaluating the effectiveness of antimicrobial therapy for a client with infective endocarditis. The nurse determines that **least** reliable indicator for effectiveness is
- A. Clear breath sounds
 - B. Systolic heart murmur
 - C. Temperature of 100.4degree celcius
 - D. Negative blood cultures
48. A patient with varicose veins tells the nurse that she wants to have surgery to remove them, because "my legs ache every evening and they are ugly." The most appropriate response will be which of the following?
- A. "Often measures such as elevating your legs and elastic stockings can relieve the discomfort associated with varicose veins
 - B. "Surgery will have a good cosmetic effect, but will not relieve the discomfort associated with varicose veins"
 - C. "All varicose veins should be surgically removed to restore adequate blood flow to your legs and prevent gangrene"
 - D. "Surgery is never indicated unless the varicose veins are interfering with circulation. Have you tried cosmetic measures to cover them up"
49. A patient who is hospitalized with left sided heart failure is complaining of increasing breathlessness. He is anxious and restless, coughing out large amount of pink frothy sputum. The nurse suspects the signs and symptoms of
- A. Pulmonary embolism
 - B. Pulmonary oedema
 - C. Right sided heart failure
 - D. Reducing anxiety
50. The nurse caring for a patient returning from coronary angioplasty with stent placement plans which of the following interventions?
- A. securing the chest tubes
 - B. maintaining leg extension on the affected side
 - C. discontinuing intravenous lines when taking oral fluids
 - D. treating chest pain with intravenous morphine as needed

Section B: Answer all Questions (25 marks)

1. Mr. Murugan, a 48 years old man is admitted to the medical ward with the diagnosis acute myocardial infarction (AMI). On admission his observations were as follows:

- Skin- pale and cold
- Fingernails – slight cyanosis
- BP 90/60mmHg
- Pulse 135 beats/minute
- Respirations 28 breaths/ minute

a. Define acute myocardial infarction (2 marks)

b. State **FOUR (4)** pharmacological treatment for acute myocardial infarction (8 marks)

c. List **TWO (2)** diagnostic investigation for patient with acute myocardial infarction (2 marks)

d. State **SIX (6)** nursing interventions for the following nursing diagnosis: (6 marks)

- **Acute pain related to ischemic myocardial tissue**

After being 5 days in the cardiac ward ward, Mr. Murugan was discharged.

e. Discuss the **health education** that will be emphasized to Mr. Murugan prior to his discharge. (7 marks)