



(University of Choice)
**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

SCHOOL OF NURSING MIDWIFERY AND PARAMEDICAL SCIENCES

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

**THIRD YEAR TRIMESTER TWO FOR THE DEGREE OF BACHELOR OF SCIENCE IN
NURSING (DIRECT ENTRY)
MAIN EXAMINATION**

COURSE CODE: NCN 324

**COURSE TITLE: MEDICAL SURGICAL NURSING: NURSING MANAGEMENT OF
ENDOCRINE, ALIMENTARY, HEPATIC AND GALLBLADDER
DISORDERS**

DATE: TUESDAY 9TH APRIL 2024

Time: 11.30AM -2.30PM

INSTRUCTIONS TO CANDIDATES

All questions are compulsory

DURATION: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This paper consists of (11) printed pages. Please turn over.

1. A patient receives atropine, an anticholinergic drug, in preparation for surgery. The nurse expects this drug to affect the GI tract by doing what?
 - A. Increasing gastric emptying
 - B. Decreasing secretions and peristaltic action
 - C. Relaxing pyloric and ileocecal sphincters
 - D. Stimulating the nervous system of the GI tract
2. After eating, a patient with an inflamed gallbladder experiences pain caused by contraction of the gallbladder. What is the mechanism responsible for this action?
 - A. Production of bile by the liver
 - B. Release of gastrin from the stomach antrum
 - C. Production of secretin by the duodenum
 - D. Production of cholecystokinin by the duodenum
3. When caring for a patient who has had most of the stomach surgically removed, what is important for the nurse to teach the patient?
 - A. Extra iron will need to be taken to prevent anemia.
 - B. Avoid foods with lactose to prevent bloating and diarrhea.
 - C. Lifelong supplementation of cobalamin (vitamin B12) will be needed.
 - D. Because of the absence of digestive enzymes, protein malnutrition is likely.
4. A 25-year-old male is seen in the endocrinology clinic for unexplained fatigue, weight gain, and low energy levels. After a series of diagnostic tests, he is diagnosed with hypothyroidism. The healthcare provider prescribes levothyroxine (Synthroid) 50 mcg/day by mouth. As the nurse educates the client about this medication, which point should be emphasized?
 - A. Should be taken in the morning
 - B. May decrease the client's energy level
 - C. Must be stored in a dark container
 - D. Will decrease the client's heart rate
5. A school nurse is assessing 8-year-old Timmy, who was brought to the school health office by his teacher due to concerns about his recent behavior. The teacher reports that Timmy has been asking to go to the bathroom frequently during class, appears tired, and has been caught sneaking snacks during lessons. Upon further questioning, Timmy's mother, who was called to the school, mentions that he has been drinking more water than usual at home, has an increased appetite, and has had a few episodes of bedwetting in the past month. She also notes that despite eating more, he seems to have lost some weight. Given these observations and suspecting diabetes, which symptom is most likely to prompt parents to seek medical evaluation for their school-age child?
 - A. Polyphagia
 - B. Dehydration
 - C. Bedwetting
 - D. Weight Loss
6. A 28-year-old male has been found wandering around in a confusing pattern. The male is sweaty and pale. Which of the following tests is most likely to be performed first?
 - A. Blood sugar check

- B. CT scan
 - C. Blood cultures
 - D. Arterial blood gases
7. A patient is admitted to the hospital with a diagnosis of primary hyperparathyroidism. A nurse checking the patient's lab results would expect which of the following changes in laboratory findings?
- A. Elevated serum calcium
 - B. Low serum parathyroid hormone (PTH)
 - C. Elevated serum vitamin D
 - D. Low urine calcium
8. A patient with Addison's disease asks a nurse for nutrition and diet advice. Which of the following diet modifications is not recommended?
- A. A diet high in grains
 - B. A diet with adequate caloric intake
 - C. A high protein diet
 - D. A restricted sodium diet
9. A patient with a history of diabetes mellitus is on the second postoperative day following cholecystectomy. She has complained of nausea and isn't able to eat solid foods. The nurse enters the room to find the patient confused and shaky. Which of the following is the most likely explanation for the patient's symptoms?
- A. Anesthesia reaction
 - B. Hyperglycemia
 - C. Hypoglycemia
 - D. Diabetic ketoacidosis
10. A nurse assigned to the emergency department evaluates a patient who underwent colonoscopy 18 hours previously. The patient reports increasing abdominal pain, fever, and chills. Which of the following conditions poses the most immediate concern?
- A. Bowel perforation
 - B. Viral Gastroenteritis
 - C. Colon cancer
 - D. Diverticulitis
11. A patient is admitted to the same-day surgery unit for a liver biopsy. Which of the following laboratory tests assesses coagulation? Select all that apply.
- A. Partial thromboplastin time
 - B. Prothrombin time
 - C. Platelet count
 - D. Hemoglobin
12. A nurse is assessing a clinic patient with a diagnosis of hepatitis A. Which of the following is the most likely route of transmission?

- A. Sexual contact with an infected partner
 - B. Contaminated food
 - C. Blood transfusion
 - D. Illegal drug use
13. A physician has diagnosed acute gastritis in a clinic patient. Which of the following medications would be contraindicated for this patient?
- A. Naproxen sodium (Naprosyn)
 - B. Calcium carbonate
 - C. Clarithromycin
 - D. Furosemide (Lasix)
14. The nurse is conducting nutrition counseling for a patient with cholecystitis. Which of the following information is important to communicate?
- A. The patient must maintain a low-calorie diet.
 - B. The patient must maintain a high protein/low carbohydrate diet.
 - C. The patient should limit sweets and sugary drinks.
 - D. The patient should limit fatty foods.
15. A patient comes to the emergency department with abdominal pain. Work-up reveals the presence of a rapidly enlarging abdominal aortic aneurysm. Which of the following actions should the nurse expect?
- A. The patient will be admitted to the medicine unit for observation and medication.
 - B. The patient will be admitted to the day surgery unit for sclerotherapy.
 - C. The patient will be admitted to the surgical unit and resection will be scheduled.
 - D. The patient will be discharged home to follow-up with his cardiologist in 24 hours.
16. A nurse in the emergency department is observing a 4-year-old child for signs of increased intracranial pressure after a fall from a bicycle, resulting in head trauma. Which of the following signs or symptoms would be cause for concern?
- A. A. Bulging anterior fontanel
 - B. Repeated vomiting
 - C. Signs of sleepiness at 10 PM
 - D. Inability to read short words from a distance of 18 inches
17. After receiving a change-of-shift report at 7:00 AM, which of these patients will you assess first?
- A. A 23-year-old with a migraine headache who is complaining of severe nausea associated with retching.
 - B. A 45-year-old who is scheduled for a craniotomy in 30 minutes and needs preoperative teaching.
 - C. A 59-year-old with Parkinson's disease who will need a swallowing assessment before breakfast
 - D. A 63-year-old with multiple sclerosis who has an oral temperature of 101.80 F and flank pain.

18. Nurse X should know that the drainage is normal four (4) days after a sigmoid colostomy when the stool is:
- A. Green liquid
 - B. Solid formed
 - C. Loose, bloody
 - D. Semi formed
19. Nurse X is caring for a client recovering from gastrointestinal bleeding. The nurse should:
- A. Plan care so the client can receive 8 hours of uninterrupted sleep each night.
 - B. Monitor vital signs every 2 hours.
 - C. Make sure that the client takes food and medications at prescribed intervals.
 - D. Provide milk every 2 to 3 hours.
20. While monitoring a male client several hours after a motor vehicle accident, which assessment data suggest increasing intracranial pressure?
- A. Blood pressure has decreased from 160/90 to 110/70
 - B. Pulse is increased from 87 to 95, with an occasional skipped beat.
 - C. The client is oriented when aroused from sleep and goes back to sleep immediately.
 - D. The client refuses dinner because of anorexia.
21. Patient X with a history of hypertension is diagnosed with primary hyperaldosteronism. This diagnosis indicates that the client's hypertension is caused by excessive hormone secretion from which of the following glands?
- A. Adrenal cortex
 - B. Pancreas
 - C. Adrenal medulla
 - D. Parathyroid
22. For a diabetic male client with a foot ulcer, the doctor orders bed rest, a wet to- dry dressing changes every shift, and blood glucose monitoring before meals and bedtime. Why are wet-to-dry dressings used for this client?
- A. They contain exudate and provide a moist wound environment
 - B. They protect the wound from mechanical trauma and promote healing.
 - C. They debride the wound and promote healing by secondary intention.
 - D. They prevent the entrance of microorganisms and minimize wound discomfort.
23. A Nurse is caring for a client in an acute Addisonian crisis. Which laboratory data would the nurse expect to find?
- A. Hyperkalemia
 - B. Reduced blood urea nitrogen (BUN)
 - C. Hyponatremia
 - D. Hyperglycemia

24. A client is admitted for treatment of the syndrome of inappropriate antidiuretic hormone (SIADH). Which nursing intervention is appropriate?
- A. Infusing I.V. fluids rapidly as ordered.
 - B. Encouraging increased oral intake.
 - C. Restricting fluids
 - D. Administering glucose-containing I.V. fluids as ordered.
25. A female client tells the nurse that she has been working hard for the last 3 months to control her type 2 diabetes mellitus with diet and exercise. To determine the effectiveness of the client's efforts, the nurse should check:
- A. Urine glucose level.
 - B. Fasting blood glucose level.
 - C. Serum fructosamine level.
 - D. Glycosylated hemoglobin level.
26. The adrenal cortex is responsible for producing which substances?
- A. Glucocorticoids and androgens
 - B. Catecholamines and epinephrine
 - C. Mineralocorticoids and catecholamines
 - D. Norepinephrine and epinephrine
27. On the third day after a partial thyroidectomy, patient X exhibits muscle twitching and hyperirritability of the nervous system. When questioned, the client reports numbness and tingling of the mouth and fingertips. Suspecting a life-threatening electrolyte disturbance, the nurse notifies the surgeon immediately. Which electrolyte disturbance most commonly follows thyroid surgery?
- A. Hypocalcemia
 - B. Hyponatremia
 - C. Hyperkalemia
 - D. Hypermagnesemia
28. A female client arrives at the emergency department with chest and stomach pain and a report of black tarry stool for several months. Which of the following orders should the nurse anticipate?
- A. Cardiac monitor, oxygen, creatine kinase and lactate dehydrogenase levels
 - B. Prothrombin time, partial thromboplastin time, fibrinogen and fibrin split product values
 - C. Electrocardiogram, complete blood count, testing for occult blood, comprehensive serum metabolic panel
 - D. Electroencephalogram, alkaline phosphatase, and aspartate aminotransferase levels, basic serum metabolic panel
29. Patient X was admitted to the hospital with ascites and jaundice. To rule out cirrhosis of the liver which laboratory test indicates liver cirrhosis?
- A. Decreased red blood cell count
 - B. Decreased serum acid phosphatase level
 - C. Elevated white blood cell count

- D. Elevated serum aminotransferase
30. The biopsy of Mr. X confirms the diagnosis of cirrhosis. Mr. X is at increased risk for excessive bleeding primarily because of:
- A. Impaired clotting mechanism
 - B. Varix formation
 - C. Inadequate nutrition
 - D. Trauma of invasive procedure
31. Patient X develops hepatic encephalopathy. Which clinical manifestation is most common with this condition?
- A. Increased urine output
 - B. Altered level of consciousness
 - C. Decreased tendon reflex
 - D. Hypotension
32. A patient who is diagnosed with liver cirrhosis is experiencing symptoms of hepatic encephalopathy. The physician ordered 50 ml of Lactulose p.o. every 2 hours. The patient suddenly develops diarrhea. The nurse best response would be:
- A. "I'll see if your physician is in the hospital".
 - B. "Maybe you're reacting to the drug; I will withhold the next dose".
 - C. "I'll lower the dosage as ordered so the drug causes only 2 to 4 stools a day".
 - D. "Frequently, bowel movements are needed to reduce sodium level".
33. Which of the following signs of increased intracranial pressure (ICP) would appear first after head trauma?
- A. Bradycardia
 - B. Large amounts of very dilute urine
 - C. Restlessness and confusion
 - D. Widened pulse pressure
34. A client with a pituitary tumor has had trans sphenoidal hypophysectomy. Which of the following interventions would be appropriate for this client?
- A. Place the client in Trendelenburg position for postural drainage
 - B. Encourage coughing and deep breathing every 2 hours
 - C. Elevate the head of the bed 30°
 - D. Encourage the Valsalva maneuver for bowel movements
35. The client with a history of diabetes insipidus is admitted with polyuria, polydipsia, and mental confusion. The priority intervention for this client is:
- A. Measure the urinary output
 - B. Check the vital signs
 - C. Encourage increased fluid intake
 - D. Weigh the client

36. A client has had a unilateral adrenalectomy to remove a tumor. To prevent complications, the most important measurement in the immediate postoperative period for the nurse to take is:
- A. Blood pressure
 - B. Temperature
 - C. Output
 - D. Specific gravity
37. A client with Addison's disease has been admitted with a history of nausea and vomiting for the past 3 days. The client is receiving IV glucocorticoids (Solu-Medrol). Which of the following interventions would the nurse implement?
- A. Daily weights
 - B. Intake/output measurements
 - C. Sodium and potassium levels monitored
 - D. Glucometer readings as ordered
38. A 32-year-old mother of three is brought to the clinic. Her pulse is 52, there is a weight gain of 30 pounds in 4 months, and the client is wearing two sweaters. The client is diagnosed with hypothyroidism. Which of the following nursing diagnoses is of highest priority?
- A. Impaired physical mobility related to decreased endurance
 - B. Hypothermia related to decreased metabolic rate
 - C. Disturbed thought processes related to interstitial edema
 - D. Decreased cardiac output related to bradycardia
39. A client with hypothyroidism asks the nurse if she will still need to take thyroid medication during the pregnancy. The nurse's response is based on the knowledge that:
- A. There is no need to take thyroid medication because the fetus's thyroid produces a thyroid-stimulating hormone.
 - B. Regulation of thyroid medication is more difficult because the thyroid gland increases in size during pregnancy.
 - C. It is more difficult to maintain thyroid regulation during pregnancy due to a slowing of metabolism.
 - D. Fetal growth is arrested if thyroid medication is continued during pregnancy.
40. A nurse is assessing a client in an extended care facility. The nurse should recognize which of the following findings as a manifestation of an obstruction of the large intestine due to a fecal impaction?
- A. The client reports one bowel movement yesterday
 - B. The client is having small, frequent liquid stools
 - C. The client is flatulent.
 - D. The client indicates vomiting once this morning
41. A nurse in the emergency department assesses a patient who has been taking long-term corticosteroids to treat renal disease. Which of the following is a typical side effect of corticosteroid treatment? Select all that apply.

- A. Hypertension
 - B. Cushingoid features
 - C. Hyponatremia
 - D. Low serum albumin
 - E. Hypernatremia
42. The nurse should explain to a client with diabetes that self-monitoring of blood glucose is preferred to urine glucose testing because:
- A. More accurate
 - B. Can be done by the client
 - C. It is easy to perform
 - D. It is not influenced by drugs
43. Paul is admitted to the hospital due to metabolic acidosis caused by Diabetic ketoacidosis (DKA). The nurse prepares which of the following medications as an initial treatment for this problem?
- A. Regular insulin
 - B. Potassium
 - C. Sodium bicarbonate
 - D. Calcium gluconate
44. A client has Gastroesophageal Reflux Disease (GERD). The nurse should teach the client that after every meal, the client should:
- A. Rest in a sitting position
 - B. Take a short walk
 - C. Drink plenty of water
 - D. Lie down at least 30 minutes
45. After gastroscopy, an adaptation that indicates major complication would be:
- A. Nausea and vomiting
 - B. Abdominal distention
 - C. Increased GI motility
 - D. Difficulty in swallowing
46. A client who has undergone a cholecystectomy asks the nurse whether there are any dietary restrictions that must be followed. The nurse would recognize that the dietary teaching was well understood when the client says the following:
- A. "Most people need to eat a high protein diet for 12 months after surgery"
 - B. "I should not eat those foods that upset me before the surgery"
 - C. "I should avoid fatty foods as long as I live"
 - D. "Most people can tolerate regular diet after this type of surgery"
47. A nurse teaches a client who has been recently diagnosed with hepatitis A about untoward signs and symptoms related to Hepatitis that may develop. The one that should be reported immediately to the physician is:

- A. Restlessness
 - B. Yellow urine
 - C. Nausea
 - D. Clay-colored stools
48. Recent research indicates that peptic ulcers are the result of which of the following:
- A. Genetic defect in gastric mucosa
 - B. Stress
 - C. Diet high in fat
 - D. *Helicobacter pylori* infection
49. Ryan has undergone a subtotal gastrectomy. The nurse should expect that nasogastric tube drainage will be what color for about 12 to 24 hours after surgery?
- A. Bile green
 - B. Bright red
 - C. Cloudy white
 - D. Dark brown
50. A newborn has been diagnosed with hypothyroidism. In discussing the condition and treatment with the family, the nurse should emphasize:
- A. They can expect the child will be mentally retarded.
 - B. Administration of thyroid hormone will prevent problems.
 - C. This rare problem is always hereditary.
 - D. Physical growth/development will be delayed.
51. A nurse is caring for a client following a paracentesis. Which of the following findings indicate the bowel was perforated during the procedure?
- A. Client report of upper chest pain
 - B. Decreased urine output
 - C. Pallor
 - D. Temperature elevation
52. A nurse is providing care to a client who is 1 day postoperative following a paracentesis. The nurse observes clear, pale-yellow fluid leaking from the operative site. Which of the following is an appropriate nursing intervention?
- A. Place a clean towel near the drainage site.
 - B. Apply a dry, sterile dressing.
 - C. Apply direct pressure to the site.
 - D. Place the client in a supine position.
53. A nurse is completing discharge teaching with a client who is 3 days postoperative following a transverse colostomy. Which of the following should the nurse include in the teaching?
- A. Mucus will be present in stool for 5 to 7 days after surgery.
 - B. Expect 500 to 1,000 mL of semi-liquid stool after 2 weeks.

- C. Stoma should be moist and pink.
 - D. Change the ostomy bag when it is $\frac{3}{4}$ full
54. A nurse is caring for a client who is receiving TPN solution. The current bag of solution was hung 24 Hours ago, and 400 mL remains to infuse. Which of the following is the appropriate action for the nurse to take?
- A. Remove the current bag and hang a new bag.
 - B. Infuse the remaining solution at the current rate and then hang a new bag.
 - C. Increase the infusion rate so the remaining solution is administered within the hour and hang a new bag.
 - D. Remove the current bag and hang a bag of lactated Ringer's
55. A nurse is caring for a client who has a new diagnosis of gastroesophageal reflux disease (GERD). The nurse should expect prescriptions for which of the following medications? (Select all that apply)
- A. Antacids
 - B. Histamine2 receptor antagonists
 - C. Opioid analgesics
 - D. Fiber laxatives

SECTION B

SHORT ANSWER QUESTIONS (20 MARKS)

1. List the hormones produced by the pituitary gland (4 marks)
2. Patient X is received through the accident and emergency unit with symptoms suggestive of Cushing's Disease. Explain the patho-physiology in Cushing's Disease (6 marks)
3. Explain 2 symptoms of Myxedema Coma (4 marks)
4. Patient X is admitted with symptoms suggestive of Cholecystitis. Explain the tests the patient will undergo to confirm the diagnosis of Diabetes Mellitus (6 Marks)

SECTION C: LONG ANSWER QUESTIONS (20 MARKS)

1. Patient X is admitted in the medical ward for management of newly diagnosed hyperthyroidism.
 - a) Explain the pathophysiology of hyperthyroidism (4 mark)
 - b) Explain the feedback mechanism for control of thyroid hormone (4 marks)
 - c) Patient X is scheduled for thyroidectomy, discuss the management of patient X for the first 48 hours post operatively (12 marks)