

50 Item Gastrointestinal Health Problems Test Drill's Answers and Rationales by brewed

Introduction: Below are the answers and rationales of the Gastrointestinal Health Problems Test Drill. Those in colored ink are my personal contributions while those in black inks are derived from Prentice Hall and Lippincott's Review Books. Watch out for some test taking skills in every item.

Disclaimer: Care has been taken to verify that all answers and rationales below are accurate. Kindly post a comment if you noticed any errors or contradictions to maintain the accuracy and precision so as not to mislead the readers.

- brewed

Situation 1: Children have a special fascination with the workings of the digestive system. To fully understand the digestive processes, Nurse Lavigna must be knowledgeable of the anatomy and physiology of the gastrointestinal system.

1. The alimentary canal is a continuous, coiled, hollow muscular tube that winds through the ventral cavity and is open at both ends. Its solid organs include all of the following except:

- a. liver
- b. gall bladder
- c. stomach
- d. pancreas

Answer: C. stomach

Rationale: Stomach is a hollow digestive organ in the GI tract. The liver, gall bladder and pancreas are all solid organs which are part of the hepato-biliary system. Test taking skills: which does not belong to the group?

2. Pharynx is lined with mucous membranes and mucous secreting glands to ease the passage of food. The laryngopharynx serves as passageway for:

- a. air only
- b. air and water
- c. food, fluids and air
- d. air and food

Answer: D. air and food

Rationale: The laryngopharynx serves as passageway for air and food and so as with the oropharynx. Option a is nasopharynx. Answers b and c may be correct but air and food is more accurate.

3. Once food has been placed in the mouth, both mechanical and chemical digestions begin. The six activities of the digestive process are:

- a. ingestion, mastication, digestion, deglutition, absorption, egestion
- b. ingestion, mastication, deglutition, digestion, absorption, egestion
- c. deglutition, ingestion, mastication, egestion, absorption, defecation

d. ingestion, digestion, mastication, deglutition, absorption, defecation

Answer: B. ingestion, mastication, deglutition, digestion, absorption, egestion

Rationale: The digestive processes involve six steps. Ingestion is taking in of food in the mouth; mastication is the mechanical process where food is converted into bolus; deglutition is the act of swallowing; digestion is the chemical breakdown of food into chyme; absorption occurs in the small intestines (solutes) and large intestines (water) and egestion/defecation where elimination of feces occur.

4. Most digestive activity occurs in the pyloric region of the stomach. What hormone stimulates the chief cells to produce pepsinogen?

- a. Gastrin
- b. Pepsin
- c. HCl
- d. Insulin

Answer: A. Gastrin

Rationale: Gastrin stimulates chief cells to produce pepsinogen when foods enter and suppression of pepsinogen when it leaves and enters the small intestines; it is the major hormone that regulates acid secretion in the stomach. Pepsin; a gastric protease secreted in an inactive form, pepsinogen, which is activated by stomach acid that acts to degrade protein. HCl is produced by the parietal cells. Insulin is a pancreatic hormone.

5. What pancreatic enzyme aids in the digestion of carbohydrates?

- a. Lipase
- b. Trypsin
- c. Amylase
- d. Chymotrypsin

Answer: C. Amylase

Rationale: Amylase aids in the digestion of carbohydrates. Trypsin/Chymotrypsin aids in the digestion of proteins. Lipase aids in the digestion of fats.

Situation 2: Nurse Dorina is going to perform an abdominal examination to Mr. Lim who was admitted due to on and off pain since yesterday.

6. How will you position Mr. Lim prior to procedure?

- a. supine with knees flexed
- b. prone
- c. lying on back
- d. sim's

Answers: A. supine with knees flexed

Rationale: During abdominal examination, positioning the client in supine with knees flexed will promote relaxation of abdominal muscles. Options b and d are inaccurate in this type of procedure. Lying on back or supine may be correct but option a is the best answer.

7. To identify any localized bulging, distention and peristaltic waves, Nurse Dorina must perform which of the following?

- a. Auscultation
- b. Inspection
- c. Palpation
- d. Percussion

Answer: B. Inspection

Rationale: Inspection is the first step in abdominal exam to note the contour and symmetry of abdomen as well as localized bulging, distention and peristaltic waves. Auscultation is done to determine the character, location and frequency of bowel sounds. Percussion is to assess tympany or dullness. Palpation is to assess areas of tenderness and discomfort. Note: In abdominal exam: Inspection, Auscultation, Percussion and Palpation are the correct order.

8. In order to identify areas of tenderness and swelling, Nurse Dorina must do:

- a. deep palpation
- b. light palpation
- c. percussion
- d. palpation

Answer: B. Light palpation

Rationale: Light palpation is done to identify areas of tenderness and swelling. Deep palpation is done to identify masses in all four quadrants. Test taking skills: one of the opposite is the correct answer

9. Mr. Lim verbalized pain on the right iliac region. Nurse Dorina knows that the organ affected would be the:

- a. liver
- b. sigmoid colon
- c. appendix
- d. duodenum

Answer: C. Appendix

Rationale: Appendix and cecum is located in the right iliac region. Liver and gall bladder is at the right hypochondriac. Sigmoid colon is at the left iliac. Duodenum, stomach and pancreas is in the epigastric region.

10. Mr. Lim felt pain upon release of Nurse Dorina's hand. This can be referred as:

- a. referred pain
- b. rebound tenderness
- c. direct tenderness
- d. indirect tenderness

Answer: B. Rebound Tenderness

Rationale: Rebound tenderness is pain felt upon sudden release of the examiners hand which in most cases suggest peritonitis. Referred pain is pain felt in an area remote from the site of origin. Direct tenderness is localized pain upon palpation. Indirect tenderness

is pain outside the area of palpation.

Situation 3: Mrs. Cruz was admitted in the Medical Floor due to pyrosis, dyspepsia and difficulty of swallowing.

11. Based from the symptoms presented, Nurse Yoshi might suspect:

- a. Esophagitis
- b. Hiatal hernia
- c. GERD
- d. Gastric Ulcer

Answer: C. Gastroesophageal Reflux Disease (GERD)

Rationale: GERD is the backflow of gastric or duodenal contents into the esophagus caused by incompetent lower esophageal sphincter. Pyrosis or heartburn, dyspepsia and dysphagia are cardinal symptoms.

12. What diagnostic test would confirm the type of problem Mrs. Cruz have?

- a. barium enema
- b. barium swallow
- c. colonoscopy
- d. lower GI series

Answer: B. Barium swallow

Rationale: Barium swallow or upper GI series would confirm GERD. Endoscopy is another diagnostic test. Options a and d are the same. Option c is incorrect.

13. Mrs. Cruz complained of pain and difficulty in swallowing. This term is referred as:

- a. Odynophagia
- b. Dysphagia
- c. Pyrosis
- d. Dyspepsia

Answer: A. Odynophagia

Rationale: When difficulty of swallowing is accompanied with pain this is now referred as odynophagia. Dysphagia is difficulty of swallowing alone.

14. To avoid acid reflux, Nurse Yoshi should advice Mrs. Cruz to avoid which type of diet?

- a. cola, coffee and tea
- b. high fat, carbonated and caffeinated beverages
- c. beer and green tea
- d. lechon paksiw and bicol express

Answer: B. High fat, carbonated and caffeinated beverages

Rationale: All are correct but option b is the best answer. In patients with GERD, this type of diet must be avoided to avoid backflow of gastric contents. Excessive caffeine reduces the tone of lower esophageal sphincter. Test Taking Skills: look for the umbrella effect

15. Mrs. Cruz' body mass index (BMI) is 25. You can categorized her as:

- a. normal
- b. overweight
- c. underweight
- d. obese

Answer: B. Overweight

Rationale: Mr. Cruz' BMI belongs to the overweight category (24 – 26), malnourished (less than 17), underweight (17 – 19), normal (20 – 23), obese (27 – 30) and morbidly obese (greater than 30). BMI is weight in kilograms divided by height in square meters.

Situation 4: Nurse Gloria is the staff nurse assigned at the Emergency Department. During her shift, a patient was rushed – in the ED complaining of severe heartburn, vomiting and pain that radiates to the flank. The doctor suspects gastric ulcer.

16. What other symptoms will validate the diagnosis of gastric ulcer?

- a. right epigastric pain
- b. pain occurs when stomach is empty
- c. pain occurs immediately after meal
- d. pain not relieved by vomiting

Answer: C. Pain occurs immediately after meal.

Rationale: In gastric ulcer food intake aggravates pain which usually occur ½ - 1 hour before meal or immediately during or after food intake. Options a, b, c suggests duodenal ulcer.

17. What diagnostic test would yield good visualization of the ulcer crater?

- a. Endoscopy
- b. Gastroscopy
- c. Barium Swallow
- d. Histology

Answer: A. Endoscopy

Rationale: Endoscopy determines bleeding, pain, difficulty swallowing, and a change in bowel habits. This would yield good visualization of the ulcer crater. Other options are also diagnostic tests in PUD.

18. Peptic ulcer disease particularly gastric ulcer is thought to be cause by which of the following microorganisms?

- a. E. coli
- b. H. pylori
- c. S. aureus
- d. K. pneumoniae

Answer: B. H. pylori

Rationale: Helicobacter pylori (H. pylori) is a bacteria responsible for most ulcers and many cases of chronic gastritis (inflammation of the stomach). This organism can weaken the protective coating of the stomach and duodenum (first part of the small intestines),

allowing the damaging digestive juices to irritate the sensitive lining of these body parts.

19. She is for occult blood test, what specimen will you collect?

- a. Blood
- b. Urine
- c. Stool
- d. Gastric Juice

Answer: C. Stool

Rationale: Occult blood test or stool guaiac test is a test that detects the presence of hidden (occult) blood in the stool (bowel movement). The stool guaiac is the most common form of fecal occult blood test (FOBT) in use today. So stool specimen will be collected.

20. Preparation of the client for occult blood examination is:

- a. Fluid intake limited only to 1 liter/day
- b. NPO for 12 hours prior to obtaining of specimen
- c. Increase fluid intake
- d. Meatless diet for 48 hours prior to obtaining of specimen

Answer: D. Meatless diet for 48 hours prior to obtaining of specimen

Rationale: Eating meat can cause false positive test result. Using proper stool collection technique, avoiding certain drugs, and observing dietary restrictions can minimize these measurement errors.

Situation 5: IBD is a common inflammatory functional bowel disorder also known as spastic bowel, functional colitis and mucous colitis.

21. The client with IBS asks Nurse June what causes the disease. Which of the following responses by Nurse June would be most appropriate?

- a. "This is an inflammation of the bowel caused by eating too much roughage"
- b. "IBS is caused by a stressful lifestyle"
- c. "The cause of this condition is unknown"
- d. "There is thinning of the intestinal mucosa caused by ingestion of gluten"

Answer: C. "The cause of this condition is unknown"

Rationale: There is no known cause of IBS, and diagnosis is made by excluding all the other diseases that cause the symptoms. There is no inflammation of the bowel. Some factors exacerbate the symptoms including anxiety, fear, stress, depression, some foods and drugs but there do not cause the disease.

22. Which of the following alimentary canal is the most common location for Chron's disease?

- a. Descending colon
- b. Jejunum
- c. Sigmoid Colon
- d. Terminal Ileum

Answer: D. Terminal Ileum

Rationale: Chronic inflammatory of GI mucosa occurs anywhere from the mouth to anus but most often in terminal ileum. Inflammatory lesions are local and involve all layers of the intestinal wall.

23. Which of the following factors is believed to be linked to Chron's disease?

- a. Diet
- b. Constipation
- c. Heredity
- d. Lack of exercise

Answer: C. Heredity

Rationale: The cause is unknown but is thought to be multifactorial. Heredity, infectious agents, altered immunity or autoimmune and environmental are factors to be considered. Test taking skill: which does not belong? Options a, b, and d are all modifiable factors.

24. How about ulcerative colitis, which of the following factors is believed to cause it?

- a. Acidic diet
- b. Altered immunity
- c. Chronic constipation
- d. Emotional stress

Answer: B. Altered immunity

Rationale: refer to rationale for number 23. Test taking skill: which does not belong? Options a, c and d are all modifiable factors.

25. Mr. Jung, had ulcerative colitis for 5 years and was admitted to the hospital. Which of the following factors was most likely of greatest significance in causing an exacerbation of the disease?

- a. A demanding and stressful job
- b. Changing to a modified vegetarian diet
- c. Beginning a weight training program
- d. Walking 2 miles everyday

Answer: A. A demanding and stressful job.

Rationale: Stress is an environmental factor that is thought to cause ulcerative colitis. Test taking skill: options b, c, and d are all healthy lifestyles.

Situation 6: A patient was admitted in the Medical Floor at St. Luke's Hospital. He was asymptomatic. The doctor suspects diverticulosis.

26. Which of the following definitions best describes diverticulosis?

- a. An inflamed outpouching of the intestine
- b. A non – inflamed outpouching of the intestine
- c. The partial impairment of the forward flow of instestinal contents
- d. An abnormal protrusions of an oxygen through the structure that usually holds it

Answer: B. A non – inflamed outpouching of the intestine.

Rationale: An increase intraluminal pressure causes the outpouching of the colon wall

resulting to diverticulosis. Option a suggests diverticulitis. Test taking skill: one of the opposite is the correct answer.

27. Which of the following types of diet is implicated in the development of diverticulosis?

- a. Low – fiber diet
- b. High – fiber diet
- c. High – protein diet
- d. Low – carbohydrate diet

Answer: A. Low – Fiber Diet

Rationale: A lack of adequate blood supply and nutrients from the diet such as low fiber foods may contribute to the development of the disease. Test taking skill: one of the opposite is the correct answer.

28. Which of the following tests should be administered to client with diverticulosis?

- a. Proctosocpy
- b. Barium enema
- c. Barium swallow
- d. Gastroscopy

Answer: B. Barium enema

Rationale: Barium enema is used to diagnose diverticulosis, however, this is contraindicated when diverticulitis is present because of the risk of rupturing the diverticulum. Test taking skill: options b and c are opposite; one may be the correct answer.

29. To improve Mr. Trinidad's condition, your best nursing intervention and teaching is:

- a. Reduce fluid intake
- b. Increase fiber in the diet
- c. Administering of antibiotics
- d. Exercise to increase intraabdominal pressure

Answer: B. Increase fiber in the diet.

Rationale: Patient with diverticulosis must be encouraged to increase roughage in diet such as fruits and vegetables rich in fiber. Increasing fluid intake 2 – 3 liters/day unless contraindicated rather reducing. Administering antibiotics can decrease bowel flora and infection but this is a dependent function of a nurse.

30. Upon review of Mr. Trinidad's chart, Nurse Drew noticed that he weighs 121 lbs and his height is 5 ft, 4 in. After computing for his Body Mass Index (BMI), you can categorize him as:

- a. obese
- b. normal
- c. obese
- d. underweight

Answer: B. Normal

Rationale: Mr. Trinidad's BMI is 23 which is normal. Refer to rationale number 15.

Situation 7: Manny, 6 years old was admitted at Cardinal Santos Hospital due to increasing frequency of bowel movements, abdominal cramps and distension.

31. Diarrhea is said to be the leading cause of morbidity in the Philippines. Nurse Harry knows that diarrhea is present if:

- a. passage of stool is more than 3 bowel movements per week
- b. passage of stool is less than 3 bowel movements per day
- c. passage of stool is more than 3 bowel movements per day
- d. passage of stool is less than 3 bowel movements per week

Answer: C. passage of stool is more than 3 bowel movements per day (thanks to Budek for the correction)

32. Diarrhea is believed to be caused by all of the following except

- a. increase intestinal secretions
- b. altered immunity
- c. decrease mucosal absorption
- d. altered motility

Answer: B. Altered Immunity

Rationale: Diarrhea is an intestinal disorder that is self – limiting. Options a, c and d are etiological factors of diarrhea.

33. What life threatening condition may result in persistent diarrhea?

- a. hypokalemia
- b. dehydration
- c. cardiac dysrhythmias
- d. leukocytosis

Answer: C. Cardiac dysrhythmias

Rationale: Due to increase frequency and fluid content in the stools, diarrhea may cause fluid and electrolyte imbalance such as hypokalemia. Once potassium is depleted, this will affect the contractility of the heart causing cardiac arrhythmia leading to death.

34. Voluminous, watery stools can deplete fluids and electrolytes. The acid base imbalance that can occur is:

- a. metabolic alkalosis
- b. metabolic acidosis
- c. respiratory acidosis
- d. respiratory alkalosis

Answer: B. Metabolic acidosis

Rationale: In diarrhea, metabolic acidosis is the acid – base imbalance that occurs while in vomiting, metabolic alkalosis occur. This is a metabolic disorder that's why eliminate options c and d. Tip: Just remember the sound when you're vomiting (alk alk alk alosis) and the sound of passage of watery stool (uhhhm uhhh ashhi dosis) hehehe

35. What is the immediate home care management for diarrhea?

- a. Milk
- b. Imodium
- c. Water
- d. Oresol

Answer: D. Oresol

Rationale: In the DOH book, oresol is the immediate home care management for diarrhea to prevent dehydration. Water may not be enough to prevent diarrhea.

Situation 8: Mr. Sean is admitted to the hospital with a bowel obstruction. He complained of colicky pain and inability to pass stool.

36. Which of these findings by Nurse Leonard, would indicate that the obstruction is in the early stages?

- a. high pitched tinkling or rumbling bowel sounds
- b. hypoactive bowel sounds
- c. no bowel sounds auscultated
- d. normal bowel sounds heard in all four quadrants

Answer: A. High pitched tinkling or rumbling bowel sounds

Rationale: Early in the bowel obstruction, the bowel attempts to move the contents past the obstruction and this is heard as high pitched tinkling bowel sounds. As the obstruction progresses, bowel sounds will diminish and may finally become absent.

37. Nasogastric tube was inserted to Mr. Sean. The NGT's primary purpose is:

- a. nutrition
- b. decompression of bowel
- c. passage for medication
- d. aspiration of gastric contents

Answer: B. Decompression of bowel

Rationale: The NGT's primary purpose is for bowel decompression especially for clients suffering from obstruction.

38. Mr. Sean has undergone surgery. Post – operatively, which of the following findings is normal?

- a. absent bowel sounds
- b. bleeding
- c. hemorrhage
- d. bowel movement

Answer: A. Absent bowel sounds

Rationale: Post – operatively, no bowel sounds are present so this is a normal finding. Bleeding and hemorrhage must be prevented to avoid complications. Bowel movement occurs only after flatus and bowel sounds are noted.

39. Client education should be given in order to prevent constipation. Nurse Leonard's health teaching should include which of the following?

- a. use of natural laxatives
- b. fluid intake of 6 glasses per day
- c. use of OTC laxatives
- d. complete bed rest

Answer: A. Use of natural laxatives

Rationale: The use of natural laxatives such as foods and fruits high in fiber is still the best way of preventing constipation. Increasing fluid intake, taking laxatives judiciously and exercise also can prevent this.

40. Four hours post – operatively, Mr. Sean complains of guarding and rigidity of the abdomen. Nurse Leonard's initial intervention is:

- a. assess for signs of peritonitis
- b. call the physician
- c. administer pain medication
- d. ignore the client

Answer: A. Assess for signs of peritonitis

Rationale: Assessment precedes intervention. Symptoms presented are signs of peritonitis. Assessment will provide you the data for prompt intervention.

Situation 9: Mr. Gerald Liu, 19 y/o, is being admitted to a hospital unit complaining of severe pain in the lower abdomen. Admission vital signs reveal an oral temperature of 101.2 0F.

41. Which of the following would confirm a diagnosis of appendicitis?

- a. The pain is localized at a position halfway between the umbilicus and the right iliac crest.
- b. Mr. Liu describes the pain as occurring 2 hours after eating
- c. The pain subsides after eating
- d. The pain is in the left lower quadrant

Answer: A. The pain is localized at a position halfway between the umbilicus and the right iliac crest. Rationale: Pain over McBurney's point, the point halfway between the umbilicus and the iliac crest, is diagnosis for appendicitis. Options b and c are common with ulcers; option d may suggest ulcerative colitis or diverticulitis.

42. Which of the following complications is thought to be the most common cause of appendicitis?

- a. A fecalith
- b. Internal bowel occlusion
- c. Bowel kinking
- d. Abdominal wall swelling

Answer: A. A fecalith

Rationale: A fecalith is a hard piece of stool which is stone like that commonly obstructs the lumen. Due to obstruction, inflammation and bacterial invasion can occur. Tumors or foreign bodies may also cause obstruction.

43. The doctor ordered for a complete blood count. After the test, Nurse Ray received the result from the laboratory. Which laboratory values will confirm the diagnosis of appendicitis?

- a. RBC $5.5 \times 10^6/\text{mm}^3$
- b. Hct 44 %
- c. WBC 13, 000/ mm^3
- d. Hgb 15 g/dL

Answer: C. WBC 13, 000/ mm^3

Rationale: Increase in WBC counts is suggestive of appendicitis because of bacterial invasion and inflammation. Normal WBC count is 5, 000 – 10, 000/ mm^3 . Other options are normal values.

44. Signs and symptoms include pain in the RLQ of the abdomen that may be localize at McBurney's point. To relieve pain, Mr. Liu should assume which position?

- a. Prone
- b. Supine, stretched out
- c. Sitting
- d. Lying with legs drawn up

Answer: D. Lying with legs drawn up

Rationale: Posturing by lying with legs drawn up can relax the abdominal muscle thus relieve pain.

45. After a few minutes, the pain suddenly stops without any intervention. Nurse Ray might suspect that:

- a. the appendix is still distended
- b. the appendix may have ruptured
- c. an increased in intrathoracic pressure will occur
- d. signs and symptoms of peritonitis occur

Answer: B. The appendix may have ruptured

Rationale: If a confirmed diagnosis is made and the pain suddenly without any intervention, the appendix may have ruptured; the pain is lessened because the appendix is no longer distended thus surgery is still needed.

Situation 10: Nurse Nico is caring to a 38-year-old female, G3P3 client who has been diagnosed with hemorrhoids.

46. Which of the following factors would most likely be a primary cause of her hemorrhoids?

- a. Her age
- b. Three vaginal delivery pregnancies

- c. Her job as a school teacher
- d. Varicosities in the legs

Answer: B. Three vaginal delivery pregnancies

Rationale: Hemorrhoids are associated with prolonged sitting, or standing, portal hypertension, chronic constipation and prolonged intra abdominal pressure as associated with pregnancy and the strain of vaginal delivery. Her job as a schoolteacher does not require prolong sitting or standing. Age and leg varicosities are not related to the development of hemorrhoids.

47. Client education should include minimizing client discomfort due to hemorrhoids.

Nursing management should include:

- a. Suggest to eat low roughage diet
- b. Advise to wear silk undergarments
- c. Avoid straining during defecation
- d. Use of sitz bath for 30 minutes

Answer: C. Avoid straining during defecation

Rationale: Straining can increase intra abdominal pressure. Health teachings also include: suggest to eat high roughage diet, wearing of cotton undergarments and use of sitz bath for 15 minutes.

48. The doctor orders for Witch Hazel 5 %. Nurse Nico knows that the action of this astringent is:

- a. temporarily relieves pain, burning, and itching by numbing the nerve endings
- b. causes coagulation (clumping) of proteins in the cells of the perianal skin or the lining of the anal canal
- c. inhibits the growth of bacteria and other organisms
- d. causes the outer layers of skin or other tissues to disintegrate

Answer: B. causes coagulation (clumping) of proteins in the cells of the perianal skin or the lining of the anal canal

Rationale: Option a are local anesthetics; c are antiseptics and d are keratolytics.

49. Which position would be ideal for the client in the early postoperative period after hemorrhoidectomy?

- a. High Fowler's
- b. Supine
- c. Side – lying
- d. Trendelenburg's

Answer: C. Side – lying

Rationale: Positioning in the early postoperative phase should avoid stress and pressure on the operative site. The prone and side – lying are ideal from a comfort perspective. A high Fowler's or supine position will place pressure on the operative site and is not recommended. There is no need for trendelenburg's position.

50. Nurse Nico instructs her client who has had a hemorrhoidectomy not to used sitz bath

until at least 12 hours postoperatively to avoid which of the following complications?

- a. Hemorrhage
- b. Rectal Spasm
- c. Urinary retention
- d. Constipation

Answer: A. Hemorrhage

Rationale: Applying heat during the immediate postoperative period may cause hemorrhage at the surgical site. Moist heat may relieve rectal spasms after bowel movements. Urinary retention caused by reflex spasm may also be relieved by moist heat. Increasing fiber and fluid in the diet can help constipation.