

TEST BANK (ALL FINAL MATERIAL)

Anatomy:

- Which of the following is the largest?
 - a. Ascending colon
 - b. Descending colon
 - c. Transverse colon
 - d. Rectum

Answer: c

- While reviewing a CT scan, a radiologist notes that the splenic flexure lies higher than the hepatic flexure, this relationship is maintained by which structure:
 - a. Mesocolon
 - b. Phrenicocolic ligament
 - c. Greater omentum
 - d. Transversus abdominis muscle

Answer: b

- The most common position of the appendix is:
 - a. Retrocecal
 - b. Pelvic
 - c. Preileal
 - d. Subcecal

Answer: a

- A 21-year-old female is diagnosed with acute appendicitis. During surgery, the surgeon notes gangrenous changes of the appendix. What is the most anatomical reason for this:
 - a. Dual arterial supply to the appendix
 - b. Compression by a retrocecal cecum
 - c. Venous congestion due to SMV thrombosis
 - d. Absence of collateral circulation

Answer: d

- A surgeon performing retroperitoneal surgery must be cautious when operating near the 3rd part of the duodenum because of its close relationship with which of the following:
 - a. Splenic artery
 - b. Abdominal aorta
 - c. Aortic bifurcation
 - d. Inferior mesenteric vein

Answer: b

- At which vertebral level does the abdominal aorta bifurcate into the common iliac arteries:
 - a. L2
 - b. L3
 - c. L4
 - d. L5

Answer: c

- All of the following are intraperitoneal except:
 - a. Ascending colon
 - b. Cecum
 - c. Transverse colon
 - d. Sigmoid

Answer: a

- An intern accidentally clamps the superior mesenteric artery during a laparotomy, which part of the colon is expected to show signs of ischemia first:
 - a. Descending colon
 - b. Rectum
 - c. Ascending colon
 - d. Sigmoid colon

Answer: c

- Parasympathetic supply of the descending colon is via:
 - a. Vagus nerve
 - b. S2,S3,S4
 - c. L1,L2
 - d. Hypogastric nerve

Answer: b

- Which of the following is a paired lateral branch of the abdominal aorta:
 - a. Celiac trunk
 - b. Lumbar arteries
 - c. Median sacral artery
 - d. Renal arteries

Answer: d

- Which of the following statements is correct about the IVC:
 - a. It passes through the diaphragm at T10
 - b. It is formed at L4
 - c. It is located on the left side of the aorta
 - d. It is formed at L5 and passes through the diaphragm at T8

Answer: d

- A surgeon performing retroperitoneal surgery must be cautious when operating near the 3rd part of the duodenum because of its close relationship with which of the following:
 - a. Splenic artery
 - b. Abdominal aorta
 - c. Aortic bifurcation
 - d. Inferior mesenteric vein

Answer: b

- Which of the following structures lies directly posterior to the abdominal aorta on the left side:
 - a. Abdominal sympathetic chain
 - b. Cisterna chyli
 - c. IVC
 - d. Azygos vein

Answer: a

- During a nephrectomy, the surgeon noticed that the right renal artery is longer than the left one, why is that:
 - a. The aorta lies closer to the left kidney
 - b. The IVC lies on the left and compresses the artery
 - c. The left adrenal gland is smaller
 - d. The right renal artery arises lower than the left

Answer: a

- A 55-year-old male with liver cirrhosis presents with hematemesis. Endoscopy reveals esophageal varices, the pathophysiology is best explained by:
 - a. IVC thrombosis
 - b. Portal- systemic anastomosis at the lower esophagus
 - c. Blockage of the splenic vein
 - d. Inferior mesenteric vein varicosity

Answer: b

- Which tributary drains into the right side of the IVC, while its counterpart drains into the left renal vein:
 - a. Right hepatic vein
 - b. Right inferior phrenic vein
 - c. Right iliac vein
 - d. Right suprarenal vein

Answer: d

- A 62-year-old man has painless bleeding per rectum. Internal hemorrhoids are diagnosed. Which vein is primarily involved:
 - a. Inferior rectal vein
 - b. Internal pudendal vein
 - c. Inferior mesenteric vein
 - d. Superior rectal vein

Answer: d

- A 67-year old woman with sigmoid diverticulitis complains of lower abdominal pain that radiates to her lower back. Which nerves are most likely transmitting this pain:
 - a. T8-T10 splanchnic nerves
 - b. Lumbar splanchnic nerves (L1-L2)
 - c. Pelvic splanchnic nerves (S2-S4)
 - d. Ilioinguinal nerve

Answer: b

- A rectal tumor in the upper third of the rectum is most likely to spread to which lymph nodes first:
 - a. Superficial inguinal
 - b. Internal iliac
 - c. External iliac
 - d. Inferior mesenteric

Answer: d

- The visceral surface of the liver has impressions from all except:
 - a. Pancreas
 - b. Stomach
 - c. Right adrenal gland
 - d. Esophagus

Answer: a

- The ligament that separates the right and left anatomical lobes of the liver is:
 - a. Round ligament
 - b. Coronary ligament
 - c. Falciform ligament
 - d. Ligamentum venosum

Answer: c

- A patient presents with obstructive jaundice. Imaging reveals a mass at the head of the pancreas. The jaundice is likely due to obstruction of the:
 - a. Hepatic vein
 - b. Common bile duct
 - c. Portal vein
 - d. Pancreatic duct

Answer: b

- A tumor compressing the left hepatic vein would most likely affect venous drainage from which lobes:
 - a. Left lobe only
 - b. Caudate and quadrate lobes
 - c. Left lobe, caudate and quadrate lobes
 - d. Entire liver equally

Answer: c

- During hepatobiliary surgery, injury to the right hepatic artery could compromise blood supply to the gallbladder through which branch:
 - a. Cystic artery
 - b. Hepatic artery proper
 - c. Left hepatic artery
 - d. Inferior pancreaticoduodenal artery

Answer: a

- A patient with gallstones is being considered for ERCP. Through which structure does the endoscope gain access to the biliary system:
 - a. Cystic duct
 - b. Fundus of gallbladder
 - c. Major duodenal papilla
 - d. Pancreatic tail

Answer: c

- Which artery runs along the superior border of the pancreas and is a branch of the celiac trunk:
 - a. Gastroduodenal artery
 - b. Superior mesenteric artery
 - c. Splenic artery
 - d. Inferior pancreaticoduodenal artery

Answer: c

- A pancreatic tumor compresses the posterior surface of the pancreas. Which structure is most likely affected:
 - a. Abdominal aorta
 - b. Transverse colon
 - c. Lesser omentum
 - d. Gallbladder

Answer: a

- Injury to the inferior mesenteric ganglia during a left hemicolectomy may cause dysfunction of which of the following:
 - a. Peristalsis in the ascending colon
 - b. Bladder contraction
 - c. Gastric acid secretion
 - d. Defecation reflex and sigmoid motility

Answer: d

- The tail of the pancreas lies in which of the following ligaments:
 - a. Gastrosplenic ligament
 - b. Splenorenal ligament
 - c. Hepatoduodenal ligament
 - d. Falciform ligament

Answer: b

- The pancreas lies in which abdominal regions:
 - a. Epigastric and umbilical
 - b. Right hypochondriac and epigastric
 - c. Left hypochondriac and epigastric
 - d. Left hypochondriac only

Answer: c

- A trauma patient presents with left upper quadrant pain. Fracture of which ribs is most likely to rupture the spleen:
 - a. Ribs 6-8
 - b. Ribs 9-11
 - c. Ribs 10-12
 - d. Ribs 7-9

Answer: b

- Which of the following structures lies posterior to the epiploic foramen:
 - a. Hepatic artery
 - b. First part of the duodenum
 - c. Portal vein
 - d. IVC

Answer: d

- A surgeon identifies the root of the mesentery during bowel resection. He notes that stretches obliquely across the posterior abdominal wall. What are its anatomical attachments:
 - a. From L1 vertebra to right costal margin
 - b. From right iliac fossa to splenic flexure
 - c. From L2 vertebra to right sacroiliac joint
 - d. From the diaphragm to the rectum

Answer: c

- A patient underwent splenectomy. During surgery, the surgeon carefully protected the tail of the pancreas while ligating the splenic vessels. Which ligament was involved:
 - a. Gastrosplenic
 - b. Splenorenal
 - c. Phrenicosplenic
 - d. Splenocolic

Answer: b

- Which of the following is correct match:
 - a. Kidneys – Intraperitoneal
 - b. Appendix – Retroperitoneal
 - c. Jejunum – Retroperitoneal
 - d. Gallbladder – Interperitoneal

Answer: d

Histology:

- A child with severe diarrhea has biopsy showing absence of paneth cells and villi, but numerous goblet cells. This histology most likely comes from:
 - a. Duodenum
 - b. Colon
 - c. Ileum
 - d. Jejunum

Answer: b

- What is the type of epithelium lines the lower 1 cm of the anal canal:
 - a. Simple columnar
 - b. Stratified squamous non-keratinized
 - c. Stratified squamous keratinized
 - d. Transitional

Answer: c

- A 6-year-old child presents with acute abdominal pain and fever. Imaging shows an inflamed appendix. Which histological feature explains the high incidence of infection of this organ:
 - a. Thick muscular layer
 - b. Complete lack of goblet cells
 - c. Narrow lumen filled with lymphoid tissue
 - d. Presence of villi

Answer: c

- A gallbladder biopsy shows lack of goblet cells. What is the interpretation:
 - a. Normal finding
 - b. Sign of chronic inflammation
 - c. Suggests metaplasia
 - d. Indirect malignancy

Answer: a

- The exocrine portion of the pancreas is composed of:
 - a. Islet cells
 - b. Acinar cells
 - c. Ductal epithelium
 - d. Hepatocytes

Answer: b

- What distinguishes pancreatic acini from those in the parotid gland:
 - a. Larger lumen
 - b. Presence of zymogen granules
 - c. Absence of ducts
 - d. Lack of polarity

Answer: b

- A radiological scan of the gallbladder shows distention without stone formation. Which hormone might be deficient:
 - a. Insulin
 - b. Gastrin
 - c. Secretin
 - d. CCK

Answer: d

- A pathologist identifies fenestrated capillaries lined with phagocytic macrophages in a liver biopsy. These structures are part of:
 - a. Interlobular ducts
 - b. Central vein
 - c. Sinusoids containing Kupffer cells
 - d. Hepatic artery branches

Answer: c

- A 60-year-old man with hemorrhoids undergoes anal canal evaluation. Histology shows a transition from simple columnar to stratified squamous non-keratinized epithelium. What is the significance of this transition zone:
 - a. It is the site of water absorption
 - b. It marks the end of Brunner's gland distribution
 - c. It represents the start of hepatic portal drainage
 - d. It is the anatomical landmark for the dentate line

Answer: d

﴿ إِنَّمَا أَمْرُهُ إِذَا أَرَادَ شَيْئًا أَنْ
يَقُولَ لَهُ كُنْ فَيَكُونُ ﴾

Pharmacology:

- Which of the following inhibits gastric acid secretion when $\text{pH} < 3$:
 - a. Gastrin
 - b. Acetylcholine
 - c. Histamine
 - d. Somatostatin

Answer: d

- Which of the following is the most common cause of peptic ulcer disease:
 - a. H.pylori
 - b. NSAIDs
 - c. Smoking
 - d. Alcohol consumption

Answer: a

- Which combination of antacids is commonly used to avoid diarrhea and constipation:
 - a. Sodium bicarbonate + calcium carbonate
 - b. Magnesium hydroxide + aluminium hydroxide
 - c. Magnesium trisilicate + calcium carbonate
 - d. Sodium bicarbonate + magnesium hydroxide

Answer: b

- Which antacid produces CO_2 as a byproduct, leading to belching:
 - a. Aluminium hydroxide
 - b. Magnesium trisilicate
 - c. Sodium bicarbonate
 - d. Magnesium hydroxide

Answer: c

- Which of the following of H_2 receptor antagonists has negligible interaction with cytochrome P450:
 - a. Cimetidine
 - b. Ranitidine
 - c. Nizatidine
 - d. b + c

Answer: c

- What is the step inhibited by PPIs in gastric acid secretion:
 - a. Histamine release
 - b. Gastric binding
 - c. H⁺/K⁺ ATPase activity
 - d. Acetylcholine stimulation

Answer: c

- Which of the following is a PPI that is available both orally and IV:
 - a. Omeprazole
 - b. Pantoprazole
 - c. Rabeprazole
 - d. Dexlansoprazole

Answer: b

- Despite the PPIs short half life, they have long duration of action because:
 - a. They accumulate in fat tissues
 - b. They are slow to absorb
 - c. They inhibit gastrin release
 - d. They irreversibly bind to the proton pump

Answer: d

- A patient on Omeprazole for GERD reports frequent headaches and abdominal discomfort. Labs showed mild hypomagnesemia and macrocytic anemia. Which deficiency is likely:
 - a. Vitamin B12
 - b. Folate
 - c. Vitamin D
 - d. Iron

Answer: a

- Which of the following osmotic laxatives is used for full bowel cleansing before colonoscopy:
 - a. Senna
 - b. Lactulose
 - c. Balanced polyethylene glycol
 - d. Mineral oil

Answer: c

- Melanosis coli is a side effect associated with:
 - a. Magnesium hydroxide
 - b. Docusate
 - c. Cascara
 - d. PEG

Answer: c

- A 70-year-old woman with chronic constipation is prescribed mineral oil. What should you monitor for:
 - a. Hypertension
 - b. Hypermagnesemia
 - c. GERD
 - d. Lipoid pneumonia

Answer: d

- Which of the following agents has opioid activity but does not cross the BBB:
 - a. Loperamide
 - b. Codeine
 - c. Morphine
 - d. Diphenoxylate

Answer: a

- A patient develops diarrhea after cholecystectomy with evidence of bile salt malabsorption. Which drug is indicated:
 - a. Cholestyramine
 - b. Loperamide
 - c. Diphenoxylate
 - d. Octreotide

Answer: a

- A drug used in Irritable Bowel Syndrome that may cause ischemic colitis as a serious adverse effect is:
 - a. Tegaserod
 - b. Alosetron
 - c. Dicyclomine
 - d. Octreotide

Answer: b

- A patient on cisplatin chemotherapy develops delayed nausea and vomiting. Which drug should be added to ondansetron and dexamethasone:
 - a. Metoclopramide
 - b. Alosetron
 - c. Diazepam
 - d. Aprepitant

Answer: d

- Which of the following drugs blocks both central and peripheral 5-HT₃ receptors:
 - a. Metoclopramide
 - b. Promethazine
 - c. Granisetron
 - d. Diphenhydramine

Answer: c

- Which of the following drugs is used to treat asymptomatic carriers of amoebiasis:
 - a. Paromomycin
 - b. Emetine
 - c. Metronidazole
 - d. Tinidazole

Answer: a

- Niclosamide is used for:
 - a. Roundworms
 - b. Liver flukes
 - c. Tapeworms
 - d. Hookworms

Answer: c

- A child has watery diarrhea, vomiting, and fever. Stool ELISA is positive for double-stranded RNA virus. What is the diagnosis:
 - a. Norovirus
 - b. Rotavirus
 - c. Adenovirus
 - d. CMV

Answer: b

- An elderly patient in a nursing home develops vomiting and diarrhea. Others in the same ward also develop symptoms. Which virus is most likely:
 - a. HSV
 - b. CMV
 - c. Rotavirus
 - d. Norovirus

Answer: d

- Which virus can cause lymphoid hyperplasia and bowel obstruction in children:
 - a. Adenovirus
 - b. CMV
 - c. HSV
 - d. Norovirus

Answer: a

Pathology:

- Which of the following zones in the hepatic acinus is most susceptible to ischemic injury:
 - a. Zone 1
 - b. Zone 2
 - c. Zone 3
 - d. All zones equally

Answer: c

- Which of the following zones in the hepatic acinus is most affected by viral hepatitis:
 - a. Zone 1
 - b. Zone 2
 - c. Zone 3
 - d. All zones equally

Answer: a

- A 55-year-old alcoholic male presents with jaundice and tender hepatomegaly. Liver biopsy shows hepatocyte swelling, Mallory bodies and neutrophils, which is the most likely diagnosis:
 - a. Hepatic steatosis
 - b. Alcoholic hepatitis
 - c. Cirrhosis
 - d. Fulminant hepatic failure

Answer: b

- Which of the following neurological signs best correlates with hepatic encephalopathy:
 - a. Hypertonia
 - b. Clonus
 - c. Myoclonus
 - d. Asterixis

Answer: d

- Which of the following pathologies is most associated with interface hepatitis and bridging necrosis on biopsy:
 - a. Alcoholic hepatitis
 - b. Cirrhosis
 - c. Steatosis
 - d. Chronic viral hepatitis

Answer: d

- Which of the following explains why women are most susceptible to ALD:
 - a. Enhanced alcohol metabolism
 - b. Lower gastric metabolism of ethanol
 - c. Genetic resistance to ALD
 - d. Higher gastric alcohol dehydrogenase activity

Answer: b

- Which cytokine is considered the major fibrogenic stimulus in liver fibrosis:
 - a. TNF – α
 - b. IL – 6
 - c. TGF – β
 - d. IL – 1

Answer: c

- Which of the following drugs causes predictable, dose-dependent liver injury:
 - a. Halothane
 - b. Methyldopa
 - c. Allopurinol
 - d. Acetaminophen

Answer: d

- Which of the following is a classic histologic feature of chronic hepatitis B infection:
 - a. Ground-glass hepatocytes
 - b. Councilman bodies
 - c. Sanded nuclei
 - d. Mallory-Denk bodies

Answer: a

- A cirrhotic patient undergoes liver biopsy, which shows collagen deposition in the space of disse and loss of sinusoidal endothelial fenestrations. Which is the most likely clinical consequence of these changes:
 - a. Increased synthesis of albumin
 - b. Enhanced protein exchange between blood and hepatocytes
 - c. Reduced hepatocellular transport of solutes
 - d. Increased absorption of glucose

Answer: c

- A 48-year-old man with a long standing history of cirrhosis presents with hematemesis. Endoscopy reveals bleeding esophageal varices. Which of the following best explains the formation of these varices:
 - a. Ballooning degeneration of hepatocytes
 - b. Periportal inflammation
 - c. Portosystemic shunts due to increased portal venous pressure
 - d. Fibrosis in the space of Disse reducing albumin synthesis

Answer: c

- A 42-year-old man has hyperpigmented skin, hepatomegaly and DM, lab shows elevated serum ferritin and transferrin saturation. Which gene is most likely mutated:
 - a. ATP7B
 - b. HFE
 - c. PiZZ
 - d. CYP450

Answer: b

- A young adult presents with behavioral changes. Labs show low ceruloplasmin, increased urinary copper, and liver biopsy confirms copper deposition. Which additional finding is most expected:
 - a. Hemochromatosis gene mutation
 - b. Kayser-Fleischer rings
 - c. Onion-skin fibrosis
 - e. Elevated α -1-antitrypsin

Answer: b

- Which of the following types of liver tumors is most commonly seen in non-cirrhotic liver and carries no risk of malignancy:
 - a. Focal nodular hyperplasia
 - b. Liver cell adenoma
 - c. Macroregenerative nodule
 - d. Small cell dysplastic nodule

Answer: a

- Aflatoxins increase risk for hepatocellular carcinoma through which of the following mechanisms:
 - a. IL-6 overexpression
 - b. ROS generation
 - c. Mutation in p53 tumor suppressor gene
 - d. Hepatocyte ballooning degeneration

Answer: c

- Which of the following not a risk factor for cholesterol stones:
 - a. Pregnancy
 - b. Obesity
 - c. Rapid weight loss
 - d. High protein diet

Answer: d

- A 30-year-old woman with sickle cell anemia presents with right upper quadrant pain. Ultrasound shows multiple stones. What is the most likely mechanism behind her gallstone formation:
 - a. Hypercholesterolemia
 - b. Chronic hemolysis
 - c. Estrogen therapy
 - d. Gallbladder carcinoma

Answer: b

- Which of the following complications is associated with acute cholecystitis if left untended:
 - a. Fatty liver
 - b. Splenic rupture
 - c. Gallbladder perforation and abscess
 - d. Abdominal torsion

Answer: c

- Histology of a gallbladder reveals dense lymphocyte infiltration, fibrosis of the wall, and flattened mucosa without ulceration. What is the most likely diagnosis:
 - a. Acute cholecystitis
 - b. Chronic cholecystitis
 - c. Gallbladder carcinoma
 - d. Gangrenous cholecystitis

Answer: b

- A 72-year-old woman with a long history of gallstones presents with weight loss and jaundice. Imaging shows an infiltrating gallbladder mass. What is the most likely diagnosis:
 - a. Gallbladder adenocarcinoma
 - b. Chronic cholecystitis
 - c. Hepatocellular carcinoma
 - d. Cholangiocarcinoma

Answer: a

Embryology:

- During 7th week of development, the parotid gland begins to form. Which of the following correctly describes its embryological origin:
 - a. Derived from endoderm and forms secretory acini only
 - b. Derived from ectoderm and undergoes branching canalization
 - c. Derived from mesoderm and forms ducts only
 - d. Derived from neural crest and form endocrine follicles

Answer: b

- A male infant presents with absent taste sensation in the anterior 2/3 of the tongue. Which of the following nerves failed to reach the tongue area during development:
 - a. Glossopharyngeal nerve
 - b. Lingual nerve
 - c. Superior laryngeal nerve
 - d. Chorda tympani of the facial nerve

Answer: d

- Damage to occipital somites during development would most likely impair which of the following tongue structures:
 - a. Intrinsic tongue muscles
 - b. Taste buds on anterior tongue
 - c. Mucosal lining of posterior tongue
 - d. Palatoglossus muscle

Answer: a

- The omental bursa develops as a result of:
 - a. Growth of liver into septum transversum
 - b. Rotation of the duodenum
 - c. Rotation of the stomach pulling dorsal mesogastrium to the left
 - d. Regression of yolk sac

Answer: c

- Which embryological event leads to the formation of the main pancreatic duct:
 - a. Entirely from dorsal pancreatic bud
 - b. From both dorsal (distal) and ventral buds
 - c. From common bile duct
 - d. From splanchnic mesoderm

Answer: b

- A child presents with congenital absence of the epiglottis. Which embryonic pharyngeal arch is likely to be involved in this anomaly:
 - a. First arch
 - b. Second arch
 - c. Third arch
 - d. Fourth arch

Answer: d

- A neonate presents with duodenal obstruction. Imaging shows a ring of pancreatic tissue around the duodenum. What is the most likely diagnosis:
 - a. Ectopic pancreas
 - b. Pancreatic agenesis
 - c. Annular pancreas
 - d. Meckel's diverticulum

Answer: c

- What is the embryologic explanation for omphalocele:
 - a. Failure of vitelline duct obliteration
 - b. Failure of bowel return to abdominal cavity
 - c. Herniation through body wall defect lateral to umbilicus
 - d. Persistence of cloacal membrane

Answer: b

- A baby girl is born with stool discharge through the vaginal vestibule. What is the most likely diagnosis:
 - a. Rectovaginal fistula
 - b. Rectovesical fistula
 - c. Cloacal membrane persistence
 - d. Anteriorly displaced anus

Answer: a

PBL:

- A 54-year-old man presents with hematemesis and black tarry stool. He has a history of NSAIDs use. Which of the following is the most likely cause of his condition:
 - a. Esophageal varices
 - b. Gastric ulcer
 - c. Mallory-Weiss tear
 - d. Duodenitis

Answer: b

- Which of the following clinical signs best suggests orthostatic hypotension in a patient with upper GI bleeding:
 - a. Supine blood pressure is low
 - b. Increase in heart rate while standing
 - c. Presence of jaundice
 - d. Drop in blood pressure upon standing

Answer: d

- A 32-year-old alcoholic male presents with vomiting followed by minor upper GI bleeding. What is the most likely diagnosis:
 - a. Stress ulcer
 - b. Esophageal varices
 - c. Mallory-weiss tear
 - d. Gastric cancer

Answer: c

- What is the most accurate sign indicating hepatic encephalopathy:
 - a. Asterixis
 - b. Confusion
 - c. Gynecomastia
 - d. Finger clubbing

Answer: a

- What is the female equivalent of gynecomastia in liver cirrhosis:
 - a. Breast enlargement
 - b. Breast atrophy
 - c. Nipple discharge
 - d. No change

Answer: b

- A patient with cirrhosis presents with distended abdomen, visible radiating from the umbilicus, and jaundice. The vascular finding is best described as:
 - a. Caput medusae
 - b. Spider angioma
 - c. Esophageal varices
 - d. Haemorrhoids

Answer: a

- Which virus is most associated with high mortality rate in pregnant women:
 - a. Hepatitis A
 - b. Hepatitis B
 - c. Hepatitis C
 - d. Hepatitis E

Answer: d

- A patient is positive anti-HCV antibody but negative HCV RNA, what does this indicate:
 - a. Acute HCV infection
 - b. Chronic active infection
 - c. Resolved past infection
 - d. False-positive antibody

Answer: c

- What distinguishes HDV from other hepatitis viruses:
 - a. Causes acute liver failure
 - b. Needs HBV for replication
 - c. Causes mild, self-limiting illness
 - d. Transmitted only via fecal-oral route

Answer: b

- What is the typical location of stress ulcer in critically ill patients:
 - a. Esophagus
 - b. Duodenum
 - c. Antrum
 - d. Fundus and body of the stomach

Answer: d

Microbiology:

- Which *Vibrio* species is associated with severe sepsis in patients with cirrhosis:
 - a. *V. cholera*
 - b. *V. parahaemolyticus*
 - c. *V. vulnificus*
 - d. *V. alginolyticus*

Answer: c

- A 35-year-old patient presents with sudden onset of profuse watery diarrhea and abdominal cramps. Stool examination reveals a "rice water" appearance. What is the most likely diagnosis:
 - a. *Salmonella typhi* infection
 - b. *Campylobacter jejuni* infection
 - c. *H. pylori* infection
 - d. Cholera caused by *Vibrio cholera*

Answer: d

- What are the optimal conditions for culturing and isolating *Campylobacter jejuni* in the laboratory:
 - a. Fully aerobic and 37 C
 - b. Microaerophilic (5% oxygen) with CO₂ added (10% CO₂) and a temperature of 42 C
 - c. Strictly anaerobic and 25 C
 - d. High oxygen environment and 30 C

Answer: b

- Which test for *H. pylori* detection involves the patient exhaling labeled CO₂:
 - a. Rapid urease test
 - b. Urea breath test
 - c. Stool antigen test
 - d. Serological test

Answer: b

- Which of the following statements about *Brucella* species is true:
 - a. All *Brucella* species require high CO₂ for growth
 - b. *Brucella canis* is the most severe species causing brucellosis in humans
 - c. *Brucella abortus* causes abortion in cattle but not in humans
 - d. *Brucella* species are Gram-positive bacteria

Answer: c

- Which of the following is a typical chronic symptom of brucellosis:
 - a. Acute renal failure
 - b. Skin rash
 - c. High neutrophil count
 - d. Lower back pain

Answer: d

- A man with undulant fever and history of eating unpasteurized cheese has negative blood cultures. What is the best next step for diagnosis:
 - a. PCR on stool
 - b. ELISA for IgG and IgA
 - c. Start doxycycline
 - d. Repeat culture

Answer: b

- A hiker develops fever, jaundice, conjunctival suffusion, and renal failure after swimming in tropical water. Dark-field urine microscopy shows tightly coiled spirochetes. What is the likely source of infection:
 - a. Fecal-contaminated food
 - b. Airborne spores
 - c. Soil contaminated with rodent urine
 - d. Blood contact

Answer: c

- Which of the following is the most appropriate treatment for Weil's syndrome:
 - a. Intravenous penicillin
 - b. Oral doxycycline
 - c. Oral ampicillin
 - d. Metronidazole

Answer: a

- What is the gold standard diagnostic test for leptospirosis:
 - a. Blood culture
 - b. Dark-field microscopy
 - c. CSF analysis
 - d. Microscopic agglutination test

Answer: d

- A 30-year-old man returns from a rural area in Jordan and presents with sudden-onset fever, anorexia, and jaundice. He reports eating food from street vendors. Laboratory studies show elevated ALT and AST with ALT/AST >1. Which of the following is the most likely diagnosis:
 - a. Hepatitis A
 - b. Hepatitis B
 - c. Hepatitis C
 - d. Hepatitis D

Answer: a

- Which marker is expected in the serum of a person who has received hepatitis B vaccine but has never had HBV infection:
 - a. Anti-HBs only
 - b. Anti-HBc IgG only
 - c. HBsAg and Anti-HBc
 - d. HBeAg

Answer: a

- A young child is brought to the clinic for mild jaundice. Labs show elevated ALT/AST, positive anti-HAV IgM. Which of the is true:
 - a. Child is a chronic carrier of HAV
 - b. Child has an acute hepatitis A infection
 - c. Child needs antiviral therapy
 - d. Child should be given interferon

Answer: b

- A medical student undergoes pre-employment screening. His hepatitis B serologic profile is as follows: HBsAg: Negative, HBsAb: Positive, HBcAb: Negative. Which of the following is best explains these results:
 - a. Acute hepatitis B infection
 - b. Chronic hepatitis B infection
 - c. Immunity due to vaccination
 - d. Past infection with natural recovery

Answer: c

- A 42-year-old man with a history of intravenous drug use presents for evaluation. He feels well but is concerned because several of his friends have been diagnosed with hepatitis. His test are positive for anti-HCV IgG and HCV RNA. What is the most likely outcome if untreated:
 - a. Spontaneous viral clearance in 80-90% of cases
 - b. Rapid development of fulminant hepatitis with liver failure
 - c. Development of lifelong protective immunity
 - d. Chronic infection that may lead to HCC

Answer: d

- What is the common mode of transmission of GI protozoal infections:
 - a. Blood transfusion
 - b. Sexual contact
 - c. Fecal-oral route
 - d. Inhalation

Answer: c

- Which of the following is pathognomonic for *Entamoeba histolytica* trophozoites:
 - a. Presence of chromatoid bars
 - b. Flagella for motility
 - c. Twice nuclei only
 - d. Engulfed RBCs

Answer: d

- A 32-year-old man presents with bloody diarrhea, abdominal pain and tenesmus. Microscopic examination reveals trophozoites with ingested RBCs. What is the most likely diagnosis:
 - a. Shigellosis
 - b. Giardiasis
 - c. Amoebic dysentery
 - d. Salmonellosis

Answer: c

- Which statement is true regarding the mature cyst of *Entamoeba histolytica*:
 - a. It has two nuclei
 - b. It is uninucleated
 - c. It produces 4 trophozoites
 - d. It is the infective form

Answer: d

- Which of the following features is most characteristic of an amoebic ulcer:
 - a. Raised, polyp-like mass
 - b. Superficial erosion of mucosa
 - c. Flask-shaped with narrow neck and deep base
 - d. Linear crack extending to submucosa

Answer: c

- Giardia lamblia trophozoites typically excyst into how many daughter trophozoites per cyst:
 - a. 2
 - b. 4
 - c. 6
 - d. 8

Answer: a

- Which of the following symptoms is most consistent with Giardia infection:
 - a. Bloody diarrhea and tenesmus
 - b. High fever and RLQ rebound tenderness
 - c. Hepatic abscess
 - d. Profuse watery diarrhea followed by greasy, floating stool

Answer: d

- A 7-year-old boy presents to the clinic with 2 weeks of watery diarrhea, abdominal cramps, and noticeable weight loss. His parents report that the stools are foul-smelling, greasy, and float in the toilet bowl. The family recently returned from a hiking trip during which they drank water from a mountain stream. On stool microscopy: No RBCs or WBCs, but flagellated trophozoites with “face-like” appearance are seen. What is the most likely mechanism of his symptoms:
 - a. Invasion of colonic mucosa
 - b. Toxin-mediated epithelial necrosis
 - c. Distribution of brush border enzymes and villous atrophy
 - d. Hypertension reaction in the duodenum

Answer: c

- A 35-year-old man with IgA deficiency presents with chronic diarrhea, fatigue, and bloating. He describes his stools as “greasy and hard to flush.” He denies fever or blood in stool. He recently volunteered in a refugee camp where sanitation was poor. Stool analysis reveals oval cysts with 4 nuclei. Antigen testing is positive for GSP65. What is the most appropriate treatment:
 - a. Albendazole
 - b. Metronidazole
 - c. Praziquantel
 - d. Supportive fluids only

Answer: b

- A 32-year-old male with HIV presents with persistent watery diarrhea for the past 3 weeks. He reports passing up to 12 liters of stool daily. He is dehydrated and has lost 6 kg. Stool examination reveals acid-fast oocysts. Which of the following is the most appropriate next step in management:
 - a. Start metronidazole and refer to oncology
 - b. Rehydrate and start Nitazoxanide + initiate HAART
 - c. Administer IV vancomycin
 - d. Prescribe albendazole and isolate patient

Answer: b

- Cryptosporidium oocysts are unique because they:
 - a. Have 8 nuclei at maturity
 - b. Contain sporozoites that develop into trophozoites in the liver
 - c. Contain 4 sporozoites which invade intestinal epithelial cells
 - d. Excyst in the large intestine to form merozoites

Answer: c

- Which of the following laboratory tests considered the gold standard for diagnosis Cryptosporidium infection in the United States:
 - a. String test
 - b. Modified acid-fast stain
 - c. PCR of blood
 - d. Direct fluorescent antibody

Answer: d

- The infective stage of Enterobius vermicularis:
 - a. Adult worm
 - b. Larvae in stool
 - c. Embryonated eggs
 - d. Unembryonated eggs

Answer: c

- What is the danger if a hydatid cyst ruptures inside the body:
 - a. Intestinal obstruction
 - b. Severe dehydration
 - c. Appendicitis
 - d. Anaphylactic shock

Answer: d

- A shepherd presents with a large hepatic cyst found on CT scan, suspected to be hydatid disease. Which of the following best explains the transmission:
 - a. Ingesting eggs from dog feces
 - b. Eating undercooked meat
 - c. Walking barefoot on contaminated soil
 - d. Drinking unfiltered water

Answer: a

- A 6-year-old child presents with malnutrition and occasional coughing. Stool exam reveals oval eggs with a thick shell. What pathological stage is most likely occurring in the lungs:
 - a. Adult worms causing direct mucosal damage
 - b. Larvae inducing eosinophilic pneumonitis
 - c. Embryonated eggs hatching in alveoli
 - d. Fertilized eggs absorbed into pulmonary circulation

Answer: b

- What is the primary intermediate host for Schistosoma species:
 - a. Freshwater fish
 - b. Freshwater snail
 - c. Water plants
 - d. Mosquitoes

Answer: b

- Which type of Schistosoma egg has a lateral spine:
 - a. S.japonicum
 - b. S.haematobium
 - c. S.mansoni
 - d. S.mekongi

Answer: c