

## Personal information

<b>Student</b>	<b>Date Of Birth</b>	<b>Batch No</b>
Aman Ullah	05-Mar-98	
<b>Academic Session</b>	<b>Subject</b>	<b>Exam</b>
2021-22	Block-II Exam (GIT+Renal-I)	- ( 2207-7 )

## Marks

<b>Total Marks</b>	<b>Marks Obtain</b>
120	85

## Paper Question & Answers Detail`s

<b>What is the name of the structure present at the angles of a classic liver lobule?</b>	<b>1</b>	<input type="radio"/> A Acinus <input checked="" type="radio"/> B Portal triad [T] <input type="radio"/> C Central vein <input type="radio"/> D Hepatocyte <input type="radio"/> E Sinusoids
<b>What is the space called that is located at the portal area between the hepatocytes and connective tissue?</b>	<b>1</b>	<input type="radio"/> A Space of Disse <input checked="" type="radio"/> B Space of Mall [T] <input type="radio"/> C Vacuole <input type="radio"/> D Lacuna <input type="radio"/> E Howship's lacuna
<b>Which of the following is a retroperitoneal part of GIT?</b>	<b>1</b>	<input type="radio"/> A Sigmoid colon <input type="radio"/> B Transverse colon <input type="radio"/> C Jejunum <input type="radio"/> D Ilium <input checked="" type="radio"/> E Ascending colon [T]
<b>Embryologically the three parts of the gut tube receive their blood supply from different arteries. The arterial supply of jejunum is from</b>	<b>1</b>	<input type="radio"/> A Inferior mesenteric artery <input checked="" type="radio"/> B Superior mesenteric artery [T] <input type="radio"/> C Gastroduodenal artery <input type="radio"/> D Celiac trunk <input type="radio"/> E Splenic artery
<b>Embryologically the three parts of the gut tube receive their blood supply from different arteries. The rectum receives its blood supply from which of the following arteies?</b>	<b>1</b>	<input type="radio"/> A Superior Mesenteric artery <input type="radio"/> B Superior vesical artery <input type="radio"/> C Lateral sacral artery <input checked="" type="radio"/> D Inferior mesenteric artery [T] <input type="radio"/> E External iliac artery
<b>The presence of Payers' patches is a chartacteristic of which part of the gastro intestinal tract</b>	<b>1</b>	<input type="radio"/> A Esophagus <input type="radio"/> B Duodenum <input type="radio"/> C Jejunum <input checked="" type="radio"/> D Ileum [T] <input type="radio"/> E Cecum
<b>A 40 years old male patient has a penetrating ulcer on the posterior wall of first part of duodenum. Which of the following blood vessel is most likely subject to erosion:</b>	<b>1</b>	<input type="radio"/> A Common hepatic artery <input type="radio"/> B Hepatic artery proper <input type="radio"/> C Celiac artery <input checked="" type="radio"/> D Gastroduodenal artery [T] <input type="radio"/> E Anteriorinferior pancreaticoduodenal artery
<b>Which of the following structures forms the bed of the stomacha.</b>	<b>1</b>	

Which of the following vessels are the contents of the greater omentum of the stomach?

1

In which part of the oesophagus does the muscularis externa contain both smooth & skeletal muscles

1

A 27-year-old man is diagnosed as having an abdominal infection that has spread retroperitoneally. Such an infection will affect which one of the following organs?

1

A 52 years old man comes to the emergency department for severe upper abdominal pain. Endoscopy reveals a tumour in antrum of stomach. A CT scan was done to find the extent of spread of the tumour. Which of the following lymph nodes can be involved?

1

Celiac trunk is ligated by the surgeon, which structure would not be suffering from ischemia:

0

Gonadal arteries are paired branches of abdominal aorta, its origin from abdominal aorta lies at which vertebral level:

1

The systemic veins at the lower end of esophagus are drained into which of the following veins?

0

Which of the following is derived from the foregut endoderm ?

1

One of the contents of meso appendix is "appendicular artery". This appendicular artery is a branch of which of the following arteries?

1

Which one of the following structures is crossed by the Root (left limb) of sigmoid meso-colon

1

- A left dome of diaphragm [T]
- B Right kidney
- C Right suprarenal gland
- D Gastroduodenal artery
- E Descending colon

- A Right & left gastric vessels
- B Right & left gastro-epiploic vessels [T]
- C Portal vein
- D Right & left hepatic arteries
- E Splenic artery

- A Upper third
- B Upper fourth
- C Middle third [T]
- D Lower third
- E Lower fourth

- A Stomach
- B Transverse colon
- C Jejunum
- D Descending colon [T]
- E Spleen

- A Coeliac nodes [T]
- B Hepatic nodes
- C Inferior mesenteric nodes
- D Lumbar nodes
- E Superior mesenteric nodes

- A Stomach
- B Liver
- C Spleen
- D Gall bladder
- E Pancreas [T]

- A L1
- B L2 [T]
- C L3
- D L4
- E L5

- A Hemiazygous vein [T]
- B IVC
- C Lt Renal vein
- D Rt Renal vein
- E Thoraco-epigastric veins

- A Beta cells of pncease [T]
- B connective tissue cells of the liver
- C coronary ligament of the liver
- D Kuffer cells
- E portal vein

- A Right colic branch of superior mesenteric artery
- B Middle colic branch of superior mesenteric artery
- C Ilio colic branch of superior mesenteric artery [T]
- D Left colic branch of inferior mesenteric artery
- E Superior rectal branch of inferior mesenteric artery

The upper end of Root of Mesentry, where dudenojejunal flexure is located, lies at which of the following vertebral level

0

Which one of the following structures is crossed by the root of mesentery attached on the posterior abdominal wall

1

In which of the following , external oblique muscle is related ?

0

The stratified squamous epithelium in the wall of Esophagus is derived from which of the following Germ layers

1

The smooth muscles and C.T in the wall of Esophagus is derived from which of the following Germ layers

1

During SGD session,the facilitator asked the students that Esophagus is developed from which of the following structures

1

The Professor of anatomy mentioned in his LCF that there are four normal compression/ indentations in the entire length of esophagus which are considered during endoscopy procedure. He asked that the 1st compression lies at which level with reference to incisor teeth

1

The arterial supply of abdominal part of esophagus is from which artery:

0

Cervical part of esophagus extends from lower end of laryngo pharynx to the root of the neck. The lower end of larygo pharynx lies at the level of which vertebra

0

During emergency surgery, it was found that a chronic gastric ulcer had perforated the posterior wall of the stomach and eroded a large artery running immediately posterior to the stomach. The artery is :

0

- A Right ureter
- B Left ureter [T]
- C Right common iliac vessels
- D Right psoas major muscle
- E Inferior vena cava

- A T12
- B L1
- C L2 [T]
- D L3
- E L4

- A Left ureter
- B Left Psoas major muscle
- C Left common iliac vessels
- D 1st part of duodenum
- E Inferior vena cava [T]

- A Pubic cartilage
- B Lacunar ligament [T]
- C Linea alba
- D Rectus sheath
- E Conjoint tendon

- A Somatic mesoderm
- B Splanchnic mesoderm
- C Paraxial mesoderm
- D Intermediate mesoderm
- E Endoderm [T]

- A Somatic mesoderm
- B Splanchnic mesoderm [T]
- C Paraxial mesoderm
- D Intermediate mesoderm
- E Endoderm

- A Primitive pharynx
- B Respiratory diverticulum
- C Proximal part of foregut [T]
- D Proximal part of midgut
- E Junction of foregut and midgut

- A 6"from incisor teeth [T]
- B 9"from incisor teeth
- C 11"from incisor teeth
- D 12"from incisor teeth
- E 15"from incisor teeth

- A Rt. Gastric A
- B Left Gastric A [T]
- C Splenic A
- D Rt. gastro-epiploic A
- E Lt gastro-epiploic A

- A C3 vertebra
- B C4 vertebra
- C C5 vertebra
- D C6 vertebra [T]
- E T2 vertebra

A 20m year old male received a harsh blow to his abdomen in the upper left quadrant during a fist fight and was taken to the hospital emergency room. Examination showed low blood pressure and tenderness on the left mid-axillary line. Also a large swelling was felt protruding downwards and medially below the left costal margin. X-ray revealed that the 9th and 10th ribs were fractured near their angles on the left side. The abdominal organ most likely to be injured due to the fracture is:

1

Which one of the following options is the Posterior relation of the right kidney:

0

After arising from the uretero-pelvic junction, the ureters descend through the abdomen on the anterior surface of which of the following muscle?

1

Which of the following structure is an anterior relation of the right kidney ?

1

Kidneys are retroperitoneal structures located on the posterior abdominal wall. What is their location in relation to the vertebral column ?

0

The left renal vein receives tributaries from several organs before terminating in the Inferior Vena Cava. Which of the following structure is drained by the Left renal vein ?

1

Calcified concretions attributed to an aging process are called corpora amylacea. These are characteristic features in the histological structure of:

1

Which of the following organs has a very markedly developed fibromuscular stroma?

1

Regarding the structural differences between the male and female urethrae, which of the following structures is present in the male urethra but is not present in the female urethra?

0

Prostate gland is supplied by which of the following arteries:

0

- A gastroduodenal artery
- B common hepatic artery
- C left gastroepiploic artery
- D splenic artery [T]
- E superior mesenteric artery

- A descending colon
- B left kidney
- C pancreas
- D spleen [T]
- E stomach

- A diaphragm
- B diaphragmatic recesses
- C eleventh rib [T]
- D psoas muscle
- E subcostal nerve

- A Quadrates lumborum
- B psoas minor
- C psoas major [T]
- D iliacus
- E transversus abdominis

- A stomach
- B spleen
- C pancreas
- D duodenum [T]
- E jejunum

- A Extends from T1 To T5
- B Extends from T5 to T12
- C Extends from T12 To L3 [T]
- D Extends from T12 to L5
- E Extends from L1 to L5

- A pancreas
- B right ovary
- C left ovary [T]
- D bladder
- E left ureter

- A Epididymis
- B Pineal gland
- C Prostate gland [T]
- D Seminal vesicles
- E Thyroid gland

- A Epididymus
- B Prostate [T]
- C Seminal vesicles
- D Testes
- E Thyroid

- A Stratified squamous epithelium
- B Transitional epithelium [T]
- C Glands of Littre
- D External sphincter of skeletal muscle
- E Connective tissue layer underlying the epithelium

Prostate gland has different lobes in relation to prostatic urethra. Which one of its lobes is located between prostatic urethra and ejaculatory duct?

1

The weight of prostate gland is clinically significant as it is increased in old age, it is

1

The trigone on the posterior wall of the urinary bladder is formed by the :

1

Extrophy of the bladder is often associated with :

0

Content of deep perineal pouch in female ?

1

Pancreas is stimulated to increase its watery alkaline secretions by:

1

A 64 year old man consumes a healthy meal. About 40 minutes later, the ileocecal sphincter relaxes and chyme moves into the cecum. Gastric distention leads to relaxation of the ileocecal sphincter by way of which reflex?

0

Which hormone is released by the presence of fat and protein in the small intestine and has a major effect in decreasing gastric emptying?

1

Which of the following best describes the mechanism for fructose movement across the luminal cell membrane of an enterocyte?

0

Swallowing is a complex process involving signaling between the pharynx and swallowing center in the brain stem. Which structure is critical for determining whether a bolus of food is small enough to be swallowed?

1

- A Superior rectal artery
- B Middle rectal artery [T]
- C Inferior rectal artery
- D Median sacral artery
- E Lumbar arteries

- A Anterior lobe
- B Posterior lobe
- C Median lobe [T]
- D Right lateral lobe
- E Left lateral lobe

- A 3 gram
- B 4 gram
- C 8 gram [T]
- D 10 gram
- E 12 gram

- A incorporation of the lower ends of the mesonephric ducts [T]
- B incorporation of of the lower ends of the pronephric ducts
- C incorporation of the metanephric mesoderm
- D incorporation of the mesonephric tubules
- E incorporation of the pronephric tubules

- A Adrenal hyperplasia
- B chromosomal; abnormalities
- C epispadias [T]
- D hypospadias
- E Urachal fistula

- A deep transverse perineal muscles
- B greater vestibular glands [T]
- C internal pudendal vessels
- D part of urethra and vagina
- E sphincter urethra

- A Bile
- B Cholecystokinin
- C Gastrin
- D Secretin [T]
- E Trypsinogen

- A Enterogastric
- B Gastroileal [T]
- C Gastrocolic
- D Intestino-intestinal
- E Rectosphincteric

- A Cholecystokinin [T]
- B Glucose dependant insulinotropic peptide
- C Gastrin
- D Motilin
- E Secretin

- A Endocytosis
- B Exocytosis
- C Facilitated diffusion [T]
- D Primary active transport
- E Secondary active transport

Motilin is secreted by the stomach and upper duodenum during fasting, and the only known function of this hormone is to increase gastrointestinal motility. Migrating motility complexes (MMCs) occur about every 90 minutes between meals and are thought to be stimulated by motilin. An absence of MMCs causes an increase in which of the following?

1

Secretin, the first gastrointestinal hormone discovered, is secreted by the "S" cells in the mucosa of the duodenum. The major stimulus for release of secretin is:

1

In addition to mucus-secreting cells that line the entire surface of the stomach, the stomach mucosa has two important types of tubular glands—oxyntic glands and pyloric glands. Main gastric glands are present in mucosa of:

1

Which of the following is least likely to be a function of Myenteric plexus?

0

which one is least likely regarding spike potential of gastrointestinal tract ?

0

A 68 year old woman with hematemesis has heartburn and stomach pain. Endoscopy shows inflammation involving the gastric body and antrum as well as a small gastric ulcer. Biopsies were positive for helicobacter pylori. H.pylori damages the gastric mucosa primarily by increasing mucosal levels of which substance?

1

Which statement is most likely regarding Secretin?

1

Which of the following is least likely regarding cholecystokinin (CCK)?

0

The proenzymic pepsinogen is secreted mainly from which of the following cells.

1

At basal rate of secretion saliva has the highest concentration of which of the following ions?

1

- A Epiglottis
- B Larynx
- C Palatopharyngeal folds [T]
- D Soft palate
- E Upper esophageal sphincter

- A Duodenal motility
- B Gastric emptying
- C Intestinal bacteria [T]
- D Mass movements
- E Swallowing

- A CCK
- B HCl [T]
- C Histamin
- D Protein digestion products
- E Somatostatin

- A Body and fundus of stomach
- B Fundus of stomach [T]
- C incisura angularis
- D Near lower esophageal sphincter
- E Pylorus of stomach

- A increased tonic contraction, or "tone," of the gut wall [T]
- B increased intensity of the rhythmical contractions
- C slightly increased rate of the rhythm of contraction
- D increased velocity of conduction of excitatory waves along the gut wall
- E contraction of sphincter muscles

- A Channels responsible are calcium-sodium channels
- B Channels are much slower to open and close than those of nerves
- C Intensity usually varies between 5-15mv [T]
- D Last 10-40 times as long in GI smooth muscle as in large nerve fibers

- E Occur automatically when the resting membrane more positive than -40mv

- A Ammonium [T]
- B Bile salts
- C Gastrin
- D HCl
- E Pepsin

- A It causes gall bladder contraction
- B It has trophic effect on gastric mucosa
- C It increases gastric motility
- D It increases pancreatic bicarbonate secretion [T]
- E It is secreted by I cells of duodenal mucosa

- A It causes contraction of gall bladder
- B It increases gastric emptying [T]
- C It increases pancreatic enzyme secretion
- D It is released by I cells of intestinal epithelium
- E It relaxes sphincter of Oddi

- A Chief (or peptic) cells of the stomach [T]
- B Epithelial cells of the stomach
- C G- cells of the stomach
- D P cells of stomach
- E Parietal (or oxyntic) cells of the stomach

**A 50 years old male visited the Nephrology OPD of Northwest Teaching Hospital for complaints of oliguria. On examination periorbital edema and edema feet was noticed. His blood pressure was 180/100 mmHg. Lab investigations were as follows: Hb: 8 gm/dl RBC count: 3.5 million/micro liter Urea: 305 mg/dl Serum creatinine: 6.1 mg/dl After analysing all this data what do you think is the most likely cause of his anemia?**

1

**Angiotensin converting enzyme (ACE) inhibitors are used for treatment of some cases of hypertension. Which of the following is the most likely the basic mechanism by which ACE inhibitors bring blood pressure down?**

1

**Loop Diuretics like furosemide causes diuresis by decreasing absorption of solutes in the loop of Henle causing osmotic diuresis. Which of the following carrier proteins is most likely inhibited by loop diuretics?**

1

**Concerning renal function, the glomerular filtration rate (GFR) is most likely increased by:**

1

**In Proximal convoluted tubule hydrogen ions are secreted into the tubular lumen by secondary active transport. Which of the following carrier is most likely responsible for this?**

0

**The Bowman's capsule hydrostatic pressure is one of the determinants of GFR. The Bowman's Capsule hydrostatic pressure is most likely to be increased as a result of:**

0

**Antidiuretic hormone (ADH) plays important role in regulation of body water. ADH causes reabsorption of water in which segment of nephron?**

1

**The juxtaglomerular complex consists of macula densa cells in the initial portion of the distal tubule and juxtaglomerular cells in the walls of the afferent and efferent arterioles. Renin, released by juxtaglomerular cells (JG cells) of the juxtaglomerular complex, mainly causes:**

1

**Nephron is the structural and functional unit of the kidney. Which of the following portions of the nephron is impermeable to water even in the presence of large amount of ADH?**

1

**By indicator dilution method, if 1ml of a 10mg/ml solution is added to a fluid compartment, what will be the volume of the fluid compartment if the final concentration of the compartment fluid is 0.01mg/ml?**

1

- A Bicarbonate
- B Calcium
- C Chloride
- D Potassium [T]
- E Sodium

- A Bone marrow suppression
- B Deficiency of erythropoietin [T]
- C Excessive hemolysis
- D Iron deficiency
- E Vitamin B12 deficiency

- A Decreases the production of Angiotensin I
- B Decreases the production of Angiotensin II [T]
- C Decreases the production of Renin
- D Decreases blood volume
- E Decreases venous return

- A Sodium-amino acid co-transporter
- B Sodium-2chloride-potassium co transporter [T]
- C Sodium-hydrogen cotransporter
- D Sodium hydrogen exchanger
- E Sodium-glucose cotransporter

- A A fall in the concentration of anti-diuretic hormone in the blood.
- B Constriction of the afferent arterioles.
- C Constriction of the efferent arterioles. [T]
- D Increase in the capsular pressure.
- E Increase in the concentration of plasma proteins

- A Hydrogen ATPase Pump
- B Hydrogen-chloride exchanger
- C Hydrogen-potassium antiporter
- D Hydrogen-potassium ATPase pump
- E Hydrogen-sodium exchanger [T]

- A Constriction of Efferent Arteriole
- B Increased GFR
- C Increased Plasma proteins
- D Increased reabsorption through proximal tubule
- E Obstruction to outflow of urine in ureter [T]

- A Collecting duct [T]
- B Distal convoluted tubule
- C Loop of Henle (Thick segment)
- D Loop of Henle (Thin segment)
- E Proximal convoluted tubule

- A Increased water reabsorption
- B Decreased Sodium reabsorption
- C Angiotensin I formation [T]
- D Decreased sodium reabsorption
- E Decreased phosphate reabsorption

- A Collecting duct
- B Descending limb of loop of Henle
- C Late distal tubule
- D Proximal tubule
- E Thick segment of the ascending limb of loop of Henle [T]

Because cell membranes are relatively impermeable to most solutes but are highly permeable to water, whenever there is a higher concentration of solute on one side of the cell membrane, water diffuses across the membrane toward the region of higher solute concentration.. What happened to the osmolarity and volume of the intracellular fluid if a hypertonic solution is added to ECF?

1

Total osmolarity of each of the three compartments is about 282 mOsm/L, with the plasma being about 1 mOsm/L greater than that of the interstitial and intracellular fluids because of the plasma proteins. For this 1 mOsm concentration gradient across the capillary membrane, how much osmotic pressure is maintained in the capillaries than in the surrounding interstitial spaces?

1

Which of the following substances has the highest Renal clearance ?

0

A patient with Chronic renal failure looks pale and complains of fatigue .Blood investigations reveal he is anemic.The Doctor started him on Iron tablets but with no response and the symptoms worsened .What should be the next line of treatment ?

1

Glycolysis and HMP shunt have which the following similarity in both pathways?

1

The rate limiting enzyme of Ketone body synthesis is which of the followings?

0

Which of the following is the rate enzyme of Ketogenesis ?

1

Which of the following Enzymes are required in both cholesterol & ketone bodies synthesis ?

1

Pancreatic secretions fall in which of the following pH category?

1

Which of the following is secreted by parietal cells of stomach?

0

- A 100 ml
- B 500 ml
- C 1000 ml [T]
- D 1500 ml
- E 2000 ml

- A ↑se in volume ↓se in osmolarity
- B ↓se in volume ↑se in osmolarity [T]
- C ↓se in volume ↓se in osmolarity
- D ↑se in volume ↑se in osmolarity
- E No increase in volume and osmolarity

- A 19.3 mm Hg [T]
- B 17.3 mm Hg
- C 15.3 mm Hg
- D 11.3 mm Hg
- E 9.3 mm Hg

- A Creatinine
- B Glucose
- C Inulin
- D PAH [T]
- E Sodium

- A Dietary intake of Iron
- B Erythropoietin [T]
- C Folate
- D Iron supplements
- E Vitamin B12

- A ATP is formed
- B Glucose-6-phosphate is an intermediate [T]
- C ribose -5-phosphate is formed
- D NAD is reduced
- E NADP is reduced

- A Acetyl-Co A Caboxylase [T]
- B HMG-Co A Lyase
- C HMG-Co A Isomerase
- D HMG-Co A Reductase
- E HMG-Co A Synthase

- A Acetyl-Co A Caboxylase
- B HMG-Co A Lyase
- C HMG-Co A Isomerase
- D MG-Co A Reductase
- E HMG-Co A Synthase [T]

- A Acetyl-Co A Caboxylase
- B HMG-Co A Reductase
- C HMG-Co A Isomerase
- D HMG-Co A Synthase [T]
- E HMG-Co A Lyase

- A Low acidic
- B Highly alkaline [T]
- C Highly acidic
- D low alkaline
- E Neutral

**A 24-year-old woman presents with diarrhea, dysphagia, jaundice and white transverse lines on the fingernails (Mee's lines). The patient is diagnosed with Arsenic poisoning, that inhibits which of the following enzymes of TCA cycle?**

**1**

**A three years boy is brought to emergency department after several episode of vomiting and lethargy. After a careful history is taken, it is found that these episodes occur after taking foods rich in fructose. His blood sugar was checked and it was found extremely low. The deficiency of which of the following enzymes may be the biochemical basis for these symptoms?**

**1**

**At What concentration of Glucose( mg/dl) in blood, the ability of kidneys to retain it is impaired, leading to its spillage in urine, accompanied by water loss, polyurea and polydipsia?**

**1**

**During catabolism of amino acids, their amino groups are transferred mainly to :**

**0**

**Oxidation of which substance in the body yields the most calories per gram?**

**1**

**The pentose phosphate pathway is less active in which one of the following tissues**

**0**

**The main regulatory enzyme of pentose phosphate pathway is**

**1**

**A-30 years old lady presented at 8 weeks and 3 days period of gestation with past history of previous two pregnancies affected by neural tube defects (NTD). Which of the following can be probable cause?**

**1**

**55 years old man presents with left sided chest pain. Detail examination and laboratory reports show no obvious risk factors like obesity, hypertension, and increased cholesterol/triglyceride/Low density lipoprotein (LDL) except right coronary artery (RCA) stenosis. Which of the following can be the most likely cause?**

**1**

**A 78-year-old male is brought to emergency with Acute myocardial infarction. Blood biochemistry reveals lactic acidosis. How much energy yield Adenosine tri phosphate(ATP) per molecule of glucose is expected in such a condition**

**1**

- A HCL& intrinsic factor
- B HCL& pepsinogen [T]
- C Mucus & HCL
- D Pepsinogen & intrinsic factor
- E Pepsinogen & mucus

- A  $\alpha$ -Keto glutarate dehydrogenase complex [T]
- B Citrate synthase
- C Isocitrate dehydrogenase
- D Malate dehydrogenase
- E Succinate dehydrogenase

- A Aldolase -B [T]
- B Aldose reductase
- C Glycogen phosphorylase
- D seglukokinase
- E hexokina

- A 100
- B 120
- C 140
- D 160
- E 200 [T]

- A Aspartate
- B Oxaloacetate
- C alpha-ketoglutrute [T]
- D Pyruvate
- E Ornithine

- A animal protein
- B glucose
- C glycogen
- D lipid [T]
- E plant protein

- A adipose tissue
- B lactating mammary gland
- C liver
- D RBCs
- E skeletal muscle [T]

- A glucose-6p-dehydrogenase [T]
- B pentose phosphate isomerase
- C pentose phosphate epimerase
- D Transaldolase
- E Transketolase

- A Maternal high levels of Folic acid
- B Maternal high levels of homocysteine [T]
- C Maternal high levels of homoserine
- D Maternal high levels of pyridoxine
- E Maternal high levels of serine

- A Increased plasma levels of alanine
- B Increased plasma levels of cysteine
- C Increased plasma levels of homocysteine. [T]
- D Low plasma levels of low density lipoproteins.
- E Low plasma levels of triglycerides.

Diabetic patients usually develop complications like cataract and neuropathy due to high concentration of sorbitol in the tissues. These complication of diabetes mellitus may be prevented by the blocking which of the following enzymes?

1

In CYSTIC FIBROSIS pancreatic duct is blocked by viscous mucous. Consequently digestion of which of the following substances is most likely impaired?

1

A 65 year-old man presents with weight loss and passage of bulky stools. Fecal fat test indicates that excretion of fats are 55 g over three days (normal is less than 21 g) and it is mostly unsplit fat. Which of the followings is the most likely cause for this condition:

1

A new born vomits after each feeding of milk based formula and does not gain weight. Biochemical testing reveals severe deficiency of galactose-1-phosphate uridyle transferase. If this condition goes untreated, which of the following is the most likely outcome for this patient:

0

Fatty acid synthase consists of two identical polypeptide subunits that function as a homodimer, generating two palmitate-synthesizing sites. How many molecules of palmitic acid will be synthesized if this homodimer is enzymatically cleaved in to two subunits :

0

Consider that in a cultured adipocyte cell line you are trying to synthesize palmitate (16-C FATTY ACID). During this process how many net molecules of CO<sub>2</sub>, adenosine triphosphate (ATP) and reduced Nicotinamide adenine dinucleotide phosphate (NADPH) are consumed to make palmitate

1

Which of the following statements best describes the overall biochemical role of PTH?

1

Which of the following 2nd messengers are utilized by parathyroid hormone?

1

A 47-year-old female develops symptoms of hypercalcemia and further workup demonstrates her to have primary hyperparathyroidism. What is the most likely risk to this patient?

1

A 63-year-old male with end-stage renal disease requiring hemodialysis three times per week presents with bone pain and

1

- A 0
- B 2 [T]
- C 4
- D 32
- E 38

- A Aldose reductase [T]
- B fructokinase
- C glucogen synthase
- D hexokinase
- E sorbitol dehydrogenase

- A Brawn bread
- B honey
- C meat
- D Olive oil [T]
- E sugarcane juice

- A Celiac disease
- B crohn"s disease
- C obstruction of bile duct
- D Surgical removal of intestine
- E chronic pancreatic disease [T]

- A Benign disease with development of cataract
- B Chronic emphysema appearing in early adulthood.
- C Chronic renal failure appearing in adolescence
- D Gastrointestinal symptoms that remit with puberty
- E Mental retardation and later death in infancy [T]

- A 0 [T]
- B 1
- C 2
- D 3
- E 4

- A 0 CO<sub>2</sub>, 7ATPs, 14NADPH [T]
- B 8CO<sub>2</sub>, 9ATPs, 9NADPH
- C 9CO<sub>2</sub>, 8ATPs, 16NADPH
- D 16 CO<sub>2</sub>, 18ATPs, 18NADPH
- E 18 CO<sub>2</sub>, 18ATPs, 18NADPH

- A decrease plasma Ca<sup>2+</sup> levels and decrease plasma phosphate levels.
- B decrease plasma Ca<sup>2+</sup> levels and increase plasma phosphate levels
- C increase plasma Ca<sup>2+</sup> levels and decrease plasma phosphate levels. [T]
- D increase plasma Ca<sup>2+</sup> levels and have no effect on plasma phosphate levels
- E increase plasma Ca<sup>2+</sup> levels and increase plasma phosphate levels

- A Calcium
- B cAMP [T]
- C diacyleglycerol
- D inositol triphosphate
- E cGMP

- A malignancy
- B Neuropathy
- C Osteomalacia
- D Renal calculi [T]
- E Tetany

several pathologic fractures of the extremities. Which is the most likely abnormality in this patient

- A hypokalemia
- B hypernatremia
- C hypophosphatemia
- D hypocalcemia [T]
- E hypochloremia

A 5 year child is diagnosed with chronic renal disorder. which of the following substances should be administered in order to prevent rickets?

1

- A Cholecalciferol
- B Ergocalciferol
- C 25-OH-calciferol
- D 1,25-di-OH-cholecalciferol [T]
- E High dietary calcium

A 17 years old girl decided to go on starvation diet. After 1 week of starvation which substance would be most likely found in her urine ?

1

- A BLOOD
- B GLUCOSE
- C KETONES [T]
- D PROTEINS
- E RED URINE PIGMENTS

A 36 year old woman reported with dull pain in the left flank. She reports fever and inability to pass urine for the last few days. Similar history was reported in the last six months. Routine urine analysis revealed presence of RBC, puss cells, WBC casts, aminoacids and characteristic hexagonal crystals. What is the probable cause

0

- A Alkaptonuria
- B Cystinuria [T]
- C Cystathioninuria
- D Phenyleketonuria
- E Tyrosinuria

A 2 year old boy was brought to Medical Out Patient Department for his instability during walking. His brain MRI and PO2 were found to be in normal limits. Where as his serum lactate levels were high. What could possibly be deficient?

0

- E PFK [T]
- D PEPCK
- C PDC (pyruvate dehydrogenase complex)
- B G6PD
- A Fumerase

A health care instructor is teaching medical students about principles of ethics in health care, and she tells them that the utmost important principle to observe while taking care of patient is doing no harm. The principle of ethics described here refers to?

1

- A Beneficence
- B Justice
- C Nonmaleficence [T]
- D Respect for autonomy
- E Veracity

There are various types of a questionnaire. One such type collect qualitative data. They use a basic structure and some branching questions but nothing that limits the responses of a respondent. The questions are more open-ended to collect specific data from participants. Which questionnaire is best defined by the above scenario?

0

- A Dichotomous Questionnaire
- B Quasi-structured Questionnaire
- C Structured Questionnaire
- D Task-based Questionnaire
- E Unstructured Questionnaire [T]

A nursing instructor is teaching nursing students about principles of ethics in health care, and she tells them that the utmost important principle to observe while taking care of patient is doing no harm. The principle of Ethics she described here;

1

- A Beneficence
- B Justice
- C Nonmaleficence [T]
- D Respect for autonomy
- E Veracity

You are working on a research project with your supervisor to learn about the culture of a specific community and answer the research question "What is it like to be a young Afghan Pashtun parent who has at least one Polio afflicted child?" your study design will be

1

- A Case Report
- B Cross-Sectional study
- C Ethnography [T]
- D Grounded Theory
- E Phenomenology

You are conducting research to study ideas, beliefs, human behaviors and other research questions that do not involve studying the relationship between variables, you are conducting a

1

- A Diagnostic research
- B Experimental research
- C Fundamental research
- D Qualitative research [T]
- E Quantitative research

A 75 year old man presented with bleeding PR. A colonoscopy revealed a rectal adenocarcinoma. In which part of the large bowel do most colorectal cancers occur?

1

In which part of the large bowel do most colorectal cancers occur? 1

- A Ascending colon and rectum
- B Caecum
- C Descending colon and rectum
- D Sigmoid colon and rectum [T]
- E Transverse colon and rectum

Which of the following is not a common cause of peptic ulcer disease (PUD)? 1

- A Ascending colon and rectum
- B Caecum
- C Descending colon and rectum
- D Transverse colon and rectum
- E Sigmoid colon and rectum [T]

An 11 years old present to clinic two weeks after recovery from a skin infection of the lower cheek that was characterized by multiple small honey crusted lesion. Her mother brought her to clinic because she is worried about the acute onset of malaise, nausea, headache, puffiness around her daughter's eyes, and odd "coke-colored" urine. Which of the following finding is expected? 0

- A Chronic alcohol ingestion [T]
- B Nonsteroidal anti-inflammatory drugs (NSAIDs)
- C Stress-related mucosal damage
- D Helicobacter pylori infection
- E All of the above are common causes of PUD

A female of 30 years presents to the medical OPD with complaints of constipation since last 10 days. Which of the following drugs will you prescribe to this patient? 1

- A Congestive cardiac failure
- B Nephrotic Syndrome
- C Nephritic syndrome [T]
- D Renal failure
- E Urethra obstruction

A laboratory assistant is advised to determine the blood glucose levels of a diabetic patient. He collected blood into a 5-mL Vacutainer tube. Which of the following preservatives should he use in order to stop glycolysis in blood cells present in tube and avoid false negative result for glucose estimation? 1

- A Domperidone
- B Lactulose [T]
- C Loperamide
- D Metoclopramide
- E Metronidazole

Food-borne diseases are caused by consuming contaminated foods or beverages and they are common among children. What is one of the best ways to help children avoid food-borne diseases? 1

- A citrate-phosphate-dextrose with adenine
- B Heparin
- C Sodium fluoride [T]
- D Sodium citrate
- E 2,3-bisphosphoglycerate

All legal means presented in the court of law to prove or disprove a matter under investigation is called: 1

- A Have them not help with cooking food
- B When cooking, have them stay out of the kitchen
- C Have them wear rubber gloves
- D Encourage them to wash their hands before and after having food [T]
- E Identify the side effects of food-borne diseases

Which one of the following is the outermost covering of the kidney: 0

- A Deposition
- B Evidence [T]
- C Fact
- D Investigation
- E Summons

Which of the following arteries supply renal capsule: 0

- A fibrous capsule
- B perirenal fat
- C perirenal fascia
- D pararenal fascia [T]
- E pararenal fat

Which of the following is one of the common presentation of renal cell carcinoma? 0

- A arcuate artery
- B afferent glomerular artery
- C interlobar artery
- D interlobular artery [T]
- E segmental artery

Which of the following is the common presentation of carcinoma caecum?

0

- A Flank mass
  - B Flank pain
  - C Hematuria [T]
  - D Lethargy
  - E Weight loss
- 
- A Anemia [T]
  - B Jaundice
  - C Obstruction
  - D Pain
  - E Vomiting