NEET PG 2024 Shift 2 Solution Set

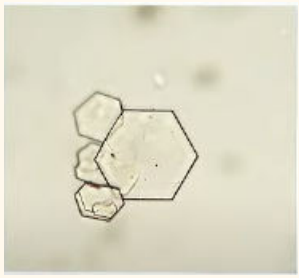
Ques 1. What is the management of the endoscopic finding given in an image?

a. Stenting
b. Balloon dilatation.
c. Fulguration
d. Internal urethrotomy

Ans. c

Solu. In order to address specific findings like bleeding, tiny tumors, or other aberrant tissues, fulguration is a method utilized during endoscopic surgery. This technique involves burning and destroying tissue with electrical current in order to remove unwanted growths or aid control bleeding.

Ques 2. A young patient presented with recurrent colicky abdominal pain, urine microscopy found to have crystals and RBC, what is the diagnosis ?



a. Oxalate stone
b. PKD

c. Cystine stones
d. Glomerulonephritis

Ans. c

Ans. Cystine stones are strongly suggested in a young patient if they have red blood cells (RBCs), crystals in their urine, and recurring colicky abdomen pain.

Diagnosis: Patients with cystinuria, a genetic condition that impairs the kidneys' ability to reabsorb the amino acid cystine, are at risk for developing cystine stones, a specific form of kidney stone that results in elevated levels of cystine in the urine.
Because cystine is not well soluble in urine, crystals and eventually stones can form.

Ques 3. Identify the image given in UGIE

a. Barrets esophagus
b. Esophageal varices
c. Gastric esrosion

Ans. b

Solu. The size, existence of other bleeding risk factors, and state of bleeding depend on how esophageal varices detected on UGIE are managed. Prompt detection and suitable preventive or remedial actions are essential to avoid major consequences such as bleeding.

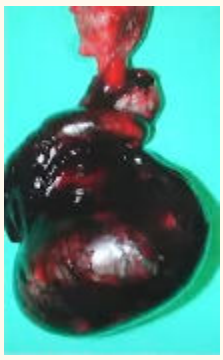
Ques 4. Identify the disease shown in the image

a. PKD
b. Renal cyst
c. Medullary sponge kidney
d. PUJ obstruction

Ans. b

Solu. Fluid-filled sacs known as renal cysts grow in the kidneys and are often discovered by accident during imaging exams. They can range in complexity from simple, benign cysts to more complicated ones that may need to be further evaluated.

Ques 5. Q. A 12 years old child presented with sudden severe onset of scrotal najn after an history of trauma 6 hours before. Intra operative image is given what is the likely diagnosis?



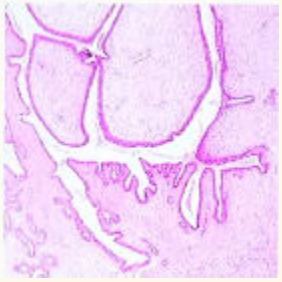
a. Torsion testis with gangrene
b. Testicular hematoma
c. Torsion testis

d. Gangrene of testis

Ans. a

Solu. Trauma may have caused the initial twist, or it may have exacerbated an already existing torsion. The presentation of a 12-year-old child with sudden severe onset of scrotal pain following trauma 6 hours earlier, combined with intraoperative findings, suggests a high likelihood of torsion of the testis with gangrene. In testicular torsion, the spermatic cord twists, cutting off blood supply to the testis; if not treated promptly, this can lead to ischemia and eventually gangrene.

Ques 6. A 40 years old female with lump in breast measuring 5 X 6 cm with HPE given in the image, what is the likely diagnosis ?



a. Phyllodes tumour
b. Fibroadenma
c. Breast carcinoma

Ans. a

Solu. Based on the patient's statement of a 40-year-old woman with a 5 x 6 cm breast lump and the results of the histological examination (HPE), Phyllodes tumor is most likely the diagnosis.
Rare fibroepithelial lesions of the breast, known as phyllodes tumors, can be either benign or malignant. The combination of stromal expansion and an epithelial component characterizes these malignancies. Characteristics

of a Phyllodes tumor on HPE include a leaf-like appearance (phyllodes), hypercellular stroma, and possible mitotic activity.

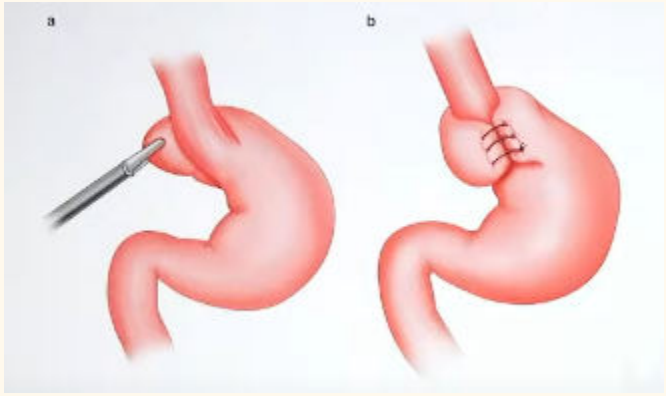
Ques 7. What is the negative pressure in VAC dressing

a. 60-90 mmHg
b. 90-100 mmHg
c. 120-130 mmHg
d. 130-150 mmHg

Ans. c

Solu. Vacuum-Assisted Closure (VAC) dressings, also called Negative Pressure Wound Therapy (NPWT), usually use a negative pressure range of 120 to 130 mmHg. Exact pressure adjustments may be made based on the type of wound, patient condition, and clinical judgment. This pressure range helps promote wound healing by drawing wound edges together, reducing edema, removing exudate, and promoting granulation tissue formation.

Ques 8. Identify the surgery shown in the image



a. Nissens fundoplication
b. Dor

Ans. a

Solu. A surgical technique called a Nissen fundoplication is commonly used to treat hiatal hernias and gastroesophageal reflux disease (GERD). In order to tighten the lower esophageal sphincter and avoid acid reflux, the upper portion of the stomach, known as the fundus, is wrapped around the lower end of the esophagus. Nissen fundoplication is the surgical technique in question, which entails wrapping the stomach around the esophagus. Laparoscopic surgery is commonly used for this operation.

Ques 9. Identify the structure marked in the intra operative image of congenital inguinal hernia ?

a. Femoral vein
b. Obturator vein
c. Testicular vein
d. Inferior epigastric vein

Ans. c

Solu. The pampiniform plexus, or testicular vein, is a structure that drains blood from the testis. It runs alongside the testicular artery and vas deferens within the spermatic cord, which is frequently exposed or manipulated during inguinal hernia repairs, particularly those involving the congenital variety. Careful management of this structure during surgery is necessary to prevent complications such as testicular ischemia or atrophy.

Ques 10. What biopsy would you take from the lesion shown
a. Excisional
b. Incisional
c. Edge

Ans. c

Ans. It is usually advised to take a biopsy at the margin of a lesion in order to acquire a representative sample. This is so that a clearer image of the

pathology may be obtained, as the margin of the lesion frequently comprises both aberrant and nearby normal tissue.

Ques 11. How does skin graft derives its nutrition on day 3

a. Plasma imbibition
b. Inosculation
c. Neovascularization
d. None

Ans. b

Solu. The process by which the graft's tiny blood vessels (capillaries) start to attach to those in the recipient's wound bed is known as inoculation. The graft initially depends on the surrounding wound bed to diffuse nutrients and oxygen, but as the inosculation process advances, blood vessels from the recipient site develop into the graft, supplying it with the nutrition and oxygen it needs. The graft's survival and integration depend on this relationship. A good inoculation helps guarantee that the graft gets enough blood flow, which is necessary for both appropriate healing and viability.

Ques 12. Identify the ulcer

a. Arterial
b. Venous

c. Trophic
d. Diabetic foot ulcer

Ans. b

Solu. Poor circulation and chronic venous insufficiency are frequently linked to venous ulcers, which can cause pressure buildup and harm to the skin and underlying tissues. The goal of proper management is usually to treat the underlying venous illness, which may entail wound care, leg elevation, and compression therapy.

Ques 13. A 30 years old female presented with the swelling in neck, what is the next step in evaluation ?

a. 1131
b. FNAC
c. TSII & T4
d. FSH

Ans. c

Solu. The next step in the evaluation process for a 30-year-old female patient who presents with swelling in the neck suggestive of a thyroid nodule or goiter is usually to assess thyroid function tests. The tests that are appropriate for this patient are as follows: - TSH (Thyroid-Stimulating Hormone): This is the primary test to evaluate thyroid function. Abnormal TSH levels can indicate whether the thyroid is underactive

(hypothyroidism) or overactive (hyperthyroidism). - Free T4 (Thyroxine): If the TSH is abnormal, measuring Free T4 helps determine the extent of thyroid dysfunction. These tests assist in determining whether the swelling is related to a functional thyroid disorder, such as hyperthyroidism or hypothyroidism. Depending on the results, additional evaluations such as ultrasound and fine-needle aspiration may be necessary.

Ques 14. Identify the drain in the image

a. ROMOVAC
b. JACKSON PRATT
C. CORRUGATE
d. PENROSE

Ans. a

Solu. In order to minimize the danger of hematoma, seroma, and infection, ROMOVAC is a sort of closed suction drainage device that is frequently used in post-operative treatment to remove blood, fluids, and other materials from a surgical site.

Ques 15. A 5-year-old girl was washing her doll with shampoo containing a chemical Rotenone. Her mother notice her in unconscious state. Which of the following Complex is inhibited by the above-mentioned chemical?

A. NADH Dehydrogenase

B. Succinate DH
C. Cytochrome C
D. Cytochrome oxidase

Ans. A

Solution. Rotenone is a substance that primarily inhibits Complex I (NADH dehydrogenase) of the mitochondrial electron transport chain.
The first enzyme in the electron transport chain, complex I (NADH dehydrogenase), is in charge of moving electrons from NADH to ubiquinone (coenzyme Q). Rotenone causes the electron transport chain to become disrupted by blocking this complex. This results in a drop in ATP synthesis and an increase in reactive oxygen species, both of which can cause cellular damage and toxicity.
Due to its effects on mitochondrial respiration and energy production, rotenone exposure from the shampoo could have serious deleterious effects on the 5-year-old girl, including unconsciousness. Medical assistance is urgently needed in this case.

Ques 16. A patient present with dilated cardiomyopathy on x ray and hypoglycemia, floppy baby, hypotonia, hepatomegaly. What is most likely diagnosis?

A. Pompe's disease
B. Von Gierke's disease
C. Ebstein anomaly

Ans. A

Solu. Pompe's illness, sometimes called Glycogen Storage illness Type II, is an uncommon hereditary metabolic condition brought on by an acid alpha-glucosidase (GAA) deficiency. This enzyme is essential for the

breakdown of glycogen in the lysosomes, which are the parts of the cell that recycle and digest different materials.

Ques 17. A 15-year-old child with difficulty in exercise, affected oxidation of long chain fatty acids and biopsy muscle shows fat vacuoles. Which of the following is the diagnosis?

A. Carnitine deficiency
B. FA synthase defect
C. LPL defect
D. LDL defect

Ans. A

Solu. A metabolic condition called taurine deficit impairs the body's capacity to use long-chain fatty acids as an energy source, particularly during extended periods of fasting or exercise. The movement of long-chain fatty acids into the mitochondria, where they are oxidized to produce energy, depends critically on the chemical carnitine.

Ques 18. A Farmer was on maize as staple diet develops rash on face, neck and hand. Which of the following vitamin should be given in the treatment?

A. Niacin
B. Thiamine

Ans. A

Solu. Niacin, sometimes referred to as vitamin B3, is a necessary vitamin that supports the nervous system, keeps the skin healthy, and aids in the conversion of food into energy. Foods including meat, fish, poultry, and whole grains contain it. Higher dosages of niacin can be used to assist

treat high cholesterol levels because it also plays a part in managing cholesterol.

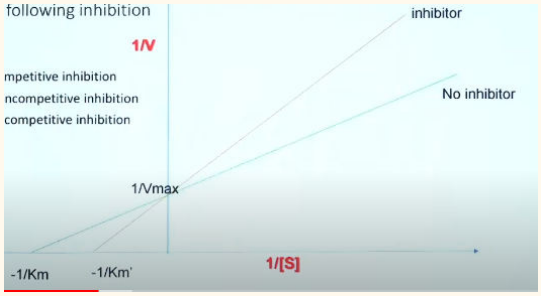
Ques 19. A patient develops mouth ulcers on treatment with Methotrexate. Which of the following will decrease with this drug?

A. UMP
B. TMP
C. CMP

Ans. B

Solu. Methotrexate is a medicine whose influence on quickly dividing cells, especially those in the mucous membranes, might result in mouth ulcers as a side effect. Methotrexate interferes with the metabolism of folate, which frequently results in ulcers.
In this case, a drug that may have an impact on the metabolism of folate is called trimethoprim (TMP). To treat bacterial infections, trimethoprim and sulfamethoxazole (TMP-SMX) are frequently combined. Methotrexate disrupts the metabolism of folate by blocking dihydrofolate reductase. This can compound the effects of other medications such as TMP that also block the metabolism of folate.
Thus, the body's total folate levels may drop when a patient is taking methotrexate, and TMP may make this drop much worse. This decreased availability of folate may be a factor in the formation of oral ulcers.

Ques 20. Increased Km and unchanged Vmax is seen in which of the following inhibition



A. Competitive inhibition
B. Noncompetitive inhibition
C. Uncompetitive inhibition

Ans. A

Solu. When an inhibitor and substrate compete to bind to the enzyme's active site, this is known as competitive inhibition. The Vmax doesn't alter since this competition can be addressed by raising the substrate concentration. Nevertheless, the Km is raised since a greater substrate concentration is needed to reach half of the Vmax.

Ques 21. A drug is given for the treatment of hyperlipidemia. Facial flushing was noted. Which of the following drug causes this side effect?

Ans. Nicotinic acid

Solu. Nicotinic acid, sometimes referred to as niacin or vitamin B3, is a medication that is frequently used to treat hyperlipidemia. Facial flushing is a well-known adverse effect of niacin therapy.
The release of prostaglandins causes the skin's blood vessels to dilate, causing redness and warmth, especially on the face. This flushing is the result of this process. This negative effect can be lessened by taking aspirin or other prostaglandin inhibitors before niacin.

Ques 22. Increased chylomicron, lipemic serum is seen in.

Ans. Lipoprotein lipase deficiency

Solu. An essential enzyme in the conversion of triglycerides in chylomicrons and very low-density lipoproteins (VLDL) into free fatty acids is lipoprotein lipase. A lack of LPL prevents triglycerides from being hydrolyzed effectively, which builds up chylomicrons in the blood and gives the serum a lipemic or milky look. Other names for this illness include Type I hyperlipoproteinemia and familial chylomicronemia syndrome.

Ques 23. Which micronutrient deficiency causes anemia, gum bleeding and x ray changes - White frankel line?

A. Copper
B. Iron
C. Zinc

Ans. B

Solu. Anemia, bleeding gums, and X-ray abnormalities like White Frankel lines (a sign of metaphyseal alterations) point more toward a vitamin C shortage than an iron deficiency.
Scurvy is the term for this illness, which is caused by a deficiency of vitamin C (ascorbic acid). Gum bleeding and other hemorrhagic symptoms can be caused by a vitamin C deficiency, which weakens blood vessels and is necessary for the creation of collagen. The malformed bones lead to skeletal abnormalities as White Frankel lines.

Ques 24. Which of the following enzyme is deficient in patient with Phenylketonuria if phenylalanine hydroxylase level is normal

Ans. Dihydrobiopterine reductase
Solu. Tetrahydrobiopterin (BH4), a cofactor needed by phenylalanine hydroxylase to convert phenylalanine to tyrosine, can only be restored by

the enzyme dihydrobiopterin reductase. When dihydrobiopterin reductase is absent, BH4 cannot be produced, which causes phenylalanine to build up even when phenylalanine hydroxylase is operating correctly. Sometimes, this type of PKU is referred to as atypical or malignant PKU.

Ques 25. A tall stature, long digits, long arm span and subluxation of lens is seen in which of the following defect

A. Fibrillin 1
B. Collagen

Ans. A

Solu. Marfan syndrome is characterized by the following clinical features: long digits (arachnodactyly), long arm span, subluxation of the lens, and tall height. Mutations in the Fibrillin-1 (FBN1) gene, which produces the important connective tissue protein fibrillin-1, cause Marfan syndrome. In addition to the characteristics you stated, this genetic flaw causes aberrant production of connective tissue throughout the body, which may lead to cardiovascular issues such as aortic aneurysms.

Ques 26. A male patient with pallor, weakness and easy fatigability. His blood report shows MCV 53, TIBC- Increased. What is your diagnosis?

Ans. Iron deficiency anemia

Solu. Based on the patient's symptoms and the results of the blood report, the diagnosis of iron deficiency anemia is accurate.
Weakness, paleness, and easily fatigued state are typical signs of anemia. Microcytic anemia is defined as a mean corpuscular volume (MCV) of 53 fL and is frequently linked to iron shortage.
Because the body is trying to absorb as much iron as it can, iron deficiency anemia is also commonly associated with an elevated total

iron-binding capacity (TIBC). These results are consistent with iron deficiency anemia, the most prevalent kind of anemia that is frequently brought on by malabsorption, prolonged blood loss, or insufficient dietary iron consumption.

Ques 27. Which of the following is methanol poisoning derivatives?

A. Formic acid+ Lactic acid
B. Acetic acid

Ans. A

Solu. Formic acid is one of the main hazardous derivatives involved in methanol poisoning. Alcohol dehydrogenase breaks down methanol when it is consumed into formaldehyde, which is subsequently broken down into formic acid. Formic acid buildup is what causes the harmful symptoms, which include metabolic acidosis, blurred vision, and possibly even optic nerve damage. Although it is not a direct byproduct of the metabolism of methanol, the body may collect lactic acid due to the extreme metabolic acidosis brought on by formic acid. Hence, lactic acid buildup is a secondary consequence of the general disruption in metabolic equilibrium, even though formic acid is a direct metabolite of methanol.