Course Title: Chemical Pathology

Program: BS (MLT)

Semester:4th

Instructor: Adnan Ahmad

From:Masood jan Id:14922 INU

Mid-Term Assignment

Section A

1. Two students of MLT are talking about the use of cholesterol in food one says its good to have cholesterols in food the other said use of more cholesterol is not good for our health, they both asked from his class teacher and he replied "having high triglyceride levels in your blood can make you more likely to have _____
   A. Arthritis
   B. Feet infections
   C. Heart disease
   D. Beri Beri
2. Focal segmental glomerulosclerosis is a disease that scars the_____
   A. Bowman's capsule
   B. Glomeruli
   C. Pancreases
   D. Liver
3. Minimal change disease **"MCD"** is the most common cause of nephrotic syndrome in_____
   A. Women
   B. Men
   C. Children
   D. Aged
4. The main signs or symptoms make up nephrotic syndrome is/are_____
   A. Proteinuria
   B. Hyperlipidemia
   C. Hypoalbuminemia
   D. All of the above
5. To diagnose a patient nephrotic syndrome, you should go for?
   A. Urine Test
   B. Blood Test
   C. Biopsy
   D. All of the above
6. Your class teacher gives you a history of patient such that a patient having yellow skin and body fluid that is the by-product of RBCs breakdown, Red blood cells typically survive for about 120 days before the body breaks them down, an increased breakdown of RBCs made the skin and body fluids colour yellow, this is due to_____
   A. Bilirubin
   B. Cytokines
   C. Alpha blockers
   D. Side effects of NSAIDs
7. New-borns with jaundice are carefully monitored and generally improve within _____hours.
   A. 04 to 07
   B. 10 to 12
   C. 12 to 24
   D. 48 to 72
8. All are true regarding Bilirubin Test Except?
   A. Is used to detect an increased level in the blood
   B. Determine the cause of jaundice
   C. **Cannot diagnose blockage of the bile ducts**.
   D. Help diagnose conditions
9. A patient of malabsorption syndrome is admitted in LRH ward and you have to test the condition, of all the possible diagnostics test the most reliable test of malabsorption is_____
   A. Stool test
   B. Blood test
   C. Berth test
   D. Imaging
10. The Urine Albumin to Creatinine Ratio (UACR) is a test that estimates how much albumin is excreted in a _____period without requiring patients to collect urine for a whole day.
    A. 12-hour
    B. 24-hour

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C. 48-hour
D. 72-hour

11. Which option are not **true** about kidney functions?
    A. Filter waste materials and toxin from the blood
    B. Production of vitamin E
    C. Red Blood Cells (Erythropoietin) formation
    D. Synthesize hormones that regulate blood pressure

12. Structural and Functional unit of the kidney is?
    A. Renal corpuscle
    B. Renal tubule
    C. Nephron
    D. All of the above

13. Normally: The pH of urine
    A. acidic
    B. alkaline
    C. varies from acidic to alkaline
    D. varies from alkaline to acidic

14. Uric acid is the end product of ……. catabolism.
    A. Thymine
    B. Pyramidin
    C. Purine
    D. Urea

15. …….is known as the good cholesterol.
    A. HDL
    B. LDL
    C. VLLDL
    D. triglycerides

Section B

Q1 What do you know about proteinuria?

Ans: <u>proteinuria:</u>

Which healthy kidney filter fluid minerals and waste from the body in the blood.When the people with **proteinuria which have unusually high amount of protein in their urine.The condition is sign of kidney disease.When kidney disease demage protein such as albumin my luck from your blood into your pea.**

There are two major group of serum protein in the blood abumin and globulins.

According 50 percent more all serum proteins.

Globulins are divided into alpha ,beta and gamma globulins.Alpa and gamma also transport substances.

Symptoms of protein uria :

In the most causes of the **proteinuria** symptums screing those people with high blood pressure swilling or edoma can occure.

Face around the eyses.

Arms ,hands ankle and feet.

Abdomen

Poancy urine.

Hypertension

Diagnosed:

UACR is test that estimates how much albumin is excreted in 24 – hour period without requiring patients to collect urine for a whole daysw.

Q2 explain Ketonuria and phenylketonuria in detail.

Ans:

Ketonuria:

They are medical condition which ketons in the urine.

They are metabolic end products of fatty acid metabolism.

They are form in the lever completely metabolism only negligible amounts appear in the urine.

The carbohydrates are unavailable or unable to used energy sources.Hgiher levels of ketons in the urine indicates the majors sources of energy.

Causes:

The body Combination of carbohydrates ,proteins and fats fuel cellular tissues.

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Glucose is the most important energy sources.They are easily untillized by cells.

They only harmones insulin is on help facilitate of glucose are able to difficulty use glucose.

Symptums:

The symptums that is present and the patient for the most part patients will often come from the previous diagnose.The following are the symptums quickly develop in 24 houres.

1. Smelling breath : A common sign looked for the medical which has been reached emergency room.Keton are called acetone which they exerted through lungs.
2. Nausea and vomiting: Ketone circulate in the blood and they cause imbalance various electrolytes such as sodium, potassium. Having low levels of these electrolytes can lead nausea and vomiting if not correct.
3. Dehydration:Due in the part frequently urination but also form nausa and vomiting as well.

Phenylketonuria:

That is inborn is the error of the metabolism that result is decrease metabolisim of amino acids phenylketonuria.PKU can lead to intellectual disability , serzures behaveioral problems and that mental result mostly smell and skin.

The metabolic genetic disorder of autosomer recesive.

Phenylketonuria hydroxylase (PAH).mutation of the gene.

PKU is rare it is the estimated to effected one and every 10000 babies.

Causes:

They are caused by disorder of mutation in the PAH gene.

They are present in the 12 chromosomes.

They do not carries the symptums of the disease but defective gene his or her children.

Symptums:

They occur healthy birth .

They only develop in the condition is not treated.

They are damage the brain and nervous systems can lead.

1. Epilepsy
2. Learning disabilities
3. Behavioural difficulties.

Lighter skin,eyes and hair with sisters or brothers without diseas.

Vomiting Recurrent
Eczema
Tremors.
Microcephaly

Diagnose:

The first week of life screening on blood sample.
The PKU they are regular blood test to the measure level of the child.

Treatment:

They are successfully treated dietary supplements with low protein diet.
Most strictly followed by diet.
Those who continue the diet better physical and mental health.

Q3 Enlist all the possible cause of Cushing syndrome.

Ans:

Cushing syndrome:

Cushing syndrome is a disorder that occur when your body make so much harmones cortisole over the long period of the time, that cortisole some time are called stess harmones because they help to body during the stess.

They maintain blood pressure.

They regulate the blood glucose also called sugar.

Which have reduce inflammation.

Turn the body food you eat into energy.

Causes:

The most common causes of the **Cushing syndrome** as the long term high they use the corstiole like glucocorticoids these are used in other medical condition Such as.

Asthma, rheumatoid, arthritis and lupus. Glucorticoids are obtain injected into join to treat pain.

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Immune system:After in organ transplant to keep the body from the new organ.

Pituitary tumors :The pituitary gland sits of base of the brain and the size have.They make the ACTH hormones .these pituitary make so much ACTH.

Causing the adrenal to make much coletrole.

Ectopic ACTH: Producing tumors most of these tumors occur on the lungs.

Ectopic tumors also can occur in the pancreas ,thyroid and thymus glands. They help builed amino system.

Adrenal Tumor: Some time a tumor is adrenal gland .

To make so much colestrol adrenal tumor are most often began but some time are cancers.