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**Dep: BS (MLT)**

**Paper: Chemical pathology**

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**Section: (A)**

- 1) Two students of MLT are talking about the use of cholesterol in food one says its good to have cholesterol 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."  
**(C) Heart disease**
- 2) Focal segmental glomerulosclerosis is a disease that scars the  
**(B) Glomeruli**
- 3) Minimal change disease "MCD" is the most common cause of nephritic syndrome in  
**(C) Children**
- 4) The main signs or symptoms make up nephritic syndrome is / are  
**(D) All of the above**
- 5) To diagnose a patient nephritic syndrome, you should go for  
**(D) All of the above**
- 6) 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 of breakdown of RBCs made the skin and body fluid color yellow this is due to  
**(A) Bilirubin**
- 7) New borns -with jaundice are carefully monitored and generally improve within hours  
**(B) 10 to 12**
- 8) All are true regarding Bilirubin test Except

## **(B) Determine the cause of jaundice**

9) A patient of malabsorption syndrome is admitted in LRH ward and you have a test condition, of all the possible diagnostics test the most reliable test of malabsorption is

**(A) Stool test**

10) The urine Albumin to creatinine ratio (UACR) is a test that estimates how much albumin is excreted in a period without requiring pattern patients to collect urine for a whole day

**(B) 24 hours**

11) Which option are not true about kidney functions.

**(B) production of vitamin E**

12) Structural and functional unit of the kidney is

**(C) Nephron**

13) Normally. The PH of urine.

**(C) varies from acidic to alkaline**

14) Uric acid is the end product of catabolism

**(C) purine**

15) Is known as the good cholesterol

**(A) HDL**

**QUESTION NO 1 ANS: proteinuria:** when healthy kidneys filter fluid, minerals and wastes from the blood, they usually don't allow large amounts of serum protein to escape into the urine. This condition can be a sign of kidney damage. Proteins which help build muscle and bone, regulate the amount of fluid blood, combat infection and repair tissue- should remain in the blood. The two major groups of serum proteins in the blood are albumin and globulins. Albumin is abundant in the blood, accounting for more than 50 percent of all serum proteins. Its important functions include pulling water into capillaries and maintaining the right amount of water in the circulatory system.

**QUESTION NO 2 ANS: Ketonuria:** ketonuria happens when u have high ketone level in your urine. This condition is also called ketoaciduria and acetonuria. Ketones or ketone bodies

are types of acids. Your body makes ketone when fats and proteins are burned for energy. Ketonuria are most common in individuals when who have diabetes, particularly type 1 diabetes mellitus. It can also occur in women who are pregnant or breastfeeding.

**Causes:** you can develop ketonuria even if u don't have diabetes or are on a strict ketogenic diet. Other causes include

- : Drink excess alcohol
- : Excessive vomiting
- : Pregnancy
- : Starvation
- : illness or infection
- : Heart attack
- : Emotional or physical trauma
- : Drug use

**Symptoms :** signs and symptoms can include

- : thirst
- : Dry mouth
- : fatigue
- : nausea and vomiting
- : frequent urination
- : confusion or difficulty focusing
- : high blood sugar etc

**Diagnose:** common tests for ketones in both your urine and your blood include

- : finger- stick ketone blood test
- : urine strip test
- : acetone breath test

You may also undergo other tests and scans to look for the cause:

- : blood electrolyte

- : complete blood count ( CBC)
- : chest X- ray
- : CT scan
- : electrocardiogram
- : blood culture test for infection etc

**Treatment:** you may require lifesaving treatment with:

- : fast -acting insulin
- : IV fluids
- : electrolyte such as sodium, potassium and chloride.

If your ketonuria due to illness, you may need additional treatment such as.

- : antibiotic
- : antivirals
- : heart procedures

**Phenylketonuria: overview:** Autosomal recessive metabolic genetic disorder

- : Mutation in the gene for phenylalanine hydroxylase (PAH)
- : when PAH activity is reduced, phenylalanine accumulates and is converted into phenylperuvate (phenylketone), which can be detected in the urine.

**Etiology:**

- : Autosomal recessive disorder caused by mutation in PAH gene
- : Located on 12<sup>th</sup> chromosomes
- : A carrier does not have symptoms if the disease, but can pass on the defective gene to his or her children.

**Symptoms:**

- : Most babies with phenylketonuria appear healthy at birth.
- : Symptoms usually only develop due to complications that arise if the condition is not treated properly

: If isn't treated, damage to brain and nerve system can lead to:

- 1) Learning disabilities
- 2) Behavioural difficulties
- 3) Epilepsy

: often have lighter skin, hair, and eyes than brothers or sisters without the disease.

: other symptoms include.

: Eczema

: Recurrent vomiting

: Jerking movements in arms and legs

: Tremors

: Mood disorders

: Microcephaly

### **Diagnosis:**

: Screening on blood sample during the first week of life.

: If a diagnosis of PKU is confirmed, the child will need regular blood test to measure levels of phenylalanine in their blood and assess how well they are responding to treatment.

### **Treatment:**

: Phenylketonuria (PKU) can be successfully treated with a low protein diet and dietary supplement

: The diet must be strictly followed.

: Those who continue the diet adulthood have physical health.

### **QUESTION NO 3 ANS:**

**Cushing syndrome causes:** Excess levels of the hormone cortisol are responsible for cushing syndrome. Cortisol which is produce in the adrenal glands, plays a variety of roles in your body.

For example: cortisol helps regulate your blood pressure, reduces inflammation, and keeps your heart and blood vessels functioning normally. Cortisol helps your body respond to stress. It also regulates the way you convert (metabolize) proteins, carbohydrates, and fats in your diet into usable energy.

However, when the level of cortisol is too high in your body, you may develop Cushing syndrome.