FACULTY OF RESOURCE SCIENCE AND TECHNOLOGY

COURSE : STB1083 BIOCHEMISTRY

ASSIGNMENT : PBL 2 FILA TABLE

GROUP MEMBERS :

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Irregular heart rhythm - occur when the electrical impulses that coordinate your heartbeats don't work properly, causing your **heart** to **beat** too fast, too slow or irregularly.

Lethargy – lack of energy

FACTS	**IDEAS**	**LEARNING OUTCOMES**	**ACTIONS**
1. A 23-year old man developed an irregular heart rhythm, complained lethargy, tremor of hands and arms	a) What are the possible diseases that have irregular heart rhythm, lethargy and tremors as its symptoms? b) What causes irregular heart rhythm? c) What are the effects of irregular heart rhythm? d) How can irregular heart rhythm cause lethargy and tremors?	- Possible diseases with symptoms of irregular heart rhythm, lethargy and tremors - Causes and effects of irregular heart rhythm	a) Hypoglycemia b) Coronary artery disease, High blood pressure, myocardial infraction, Electrolyte imbalance and many more other medical conditions. c) Stroke and heart failure. d) The flutter of atrial chambers causes the chambers fail to pump the blood well and cannot reach the tissues. This lead to lethargy and tremors.
2. He complained about anxiety, sweating and hunger	a) What could trigger anxiety, sweating and hunger?	- Causes of anxiety	a) Hypoglycemia also triggers the release of body hormones, such as epinephrine and norepinephrine. Your brain relies on these hormones to raise blood sugar levels. The release of these hormones causes additional symptoms of tremor, sweating, rapid heartbeat, anxiety and hunger
3. Blood sugar levels is 2.7 mmol/L	a) How does blood sugar levels be tested? (procedures)	- Procedures of blood glucose test - Blood glucose level of a healthy	a) You can take a blood sugar test two ways. People who are monitoring or managing their diabetes prick their finger

	b) What is the sugar level of a healthy adult male? c) What is the range of blood sugar level of people suffering from hypoglycemia and hyperglycemia? d) What does the blood sugar level of 2.7 mmol/L indicate? e) What are the causes and effects of hypoglycemia and hyperglycemia? f) What happens if he/she does not seek any medical treatment? g) What are the treatments that he/she might receive? h) What are the healthy lifestyles that can be done to maintain a normal blood sugar level?	and an unhealthy person - Causes and effects of hypoglycemia - Treatments of hypoglycemia - Lifestyles to maintain a normal blood sugar level	using a glucometer for daily testing. The other method is drawing blood. Blood sa mples are generally used to screen for diabetes. 1. After washing your hands, insert a test strip into your meter. 2. Use your lancing device on the side of your fingertip to get a drop of blood. 3. Touch and hold the edge of the test strip to the drop of blood and wait for the result. 4. Your blood glucose level will appear on the meter's display. b) Normal blood sugar levels are as follows: Between 4.0 to 5.4 mmol/L (72 to 99 mg/dL) when fasting. Up to 7.8 mmol/L (140 mg/dL) 2 hours after eating. c) Hypoglycemia is a condition in which the blood sugar level is lower than normal. For most people, a fasting blood sugar level of 70 mg/dL or 3.9 mmol/L, or below should serve as an alert for hypoglycemia but the number may differ in some individual. On the other hand, hyperglycemia is a condition in which the blood sugar level is higher than normal. The blood sugar level for people suffering from hyperglycemia is usually above 7.0 mmol/L when fasting or above 11.0 mmol/L 2 hours after meals. d) For individuals suffering from hypoglycemia, the blood sugar level below 3.0 mmol/L is a cause for

			immediate action. e) Hypoglycemia can occur with or without diabetes. The possible causes of hypoglycemia, with diabetes is if the person takes too much insulin or other diabetes medication which can make their blood sugar level to drop too low or if the person eats less than usual after taking diabetes medication or if they exercise too often. The possible causes without diabetes is less common. The causes include taking someone else's oral diabetes medication accidentally, excessive alcohol drinking, critical illnesses such as severe hepatitis or cirrhosis, insulin overproduction and hormone deficiencies. The effects of hypoglycemia are anxiety, fatigue, hunger, visual disturbances, seizures and loss of consciousness. As for hyperglycemia, the cause is related to diabetes which lowers insulin's effect on the body. This may be because the pancreas is unable to produce insulin (type 1 diabetes) or the body is resistant to the effects of insulin or is unable to produce enough insulin (type 2 diabetes). As a result, glucose tends to build up in the bloodstream and may reach dangerously high levels if not treated properly. The effects of hyperglycemia include nerve damage (neuropathy), kidney failure (diabetic nephropathy), damage to the blood vessels of the retina in which blindness is possible and clouding of the eye lenses. f) Untreated hypoglycemia can cause permanent neurological damage, seizure,

			loss of consciousness and even death. g) Hypoglycemia may make you pass out. If this happens, glucagon must be injected into the body. Glucagon is a prescription medicine that raises blood sugar, and you may need it if you have severe hypoglycemia. h) - Eating healthy diet at regular times and not skipping meals - Drinking water instead of juice and soda - Choosing fruit instead of a candy bar - Getting at least 150 minutes of moderate-to-intense exercise each week