Course Title: Medical Biochemistry II Radiology 2nd, Sec A Student Name:. Kamran Ahmad Student ID: 16203

Max Marks: 30

Note: There are TWO sections

Section A consist of 15 MCQs and 10 match column questions, each carry ONE mark with grand total of 25 marks. Choose the appropriate option and write in the ANSWER section. Section B consist of 2 short questions, with grand total of 5 marks Write to the point answers, do not give explanation. ATTEMPT all questions of Section A and Section B

SECTION A

1. Malnutrition means

- a. A person is not eating properly.
- b. May mean undernutrition or over nutrition.
- c. Someone is starved.
- d. Someone is eating too much.

2. The first reaction in the citric acid cycle is binding

- a. Carbon dioxide to a four-carbon (C4) molecule.
- b. Acetyl-CoA to a C4 molecule.
- c. Acetyl-CoA to a C5 molecule.
- d. Acetyl-CoA to citric acid.

3. Macronutrients that provide energy include all except:

- a. carbohydrate
- b. Proteins
- c. Fats
- d. Fiber

4. Which process produces both NADH and FADH2?

- a. The citric acid cycle
- b. Glycolysis
- c. Urea cycle
- d. The preparatory reaction

5. Which nutrient provides the most amount of energy per gram?

- a. Carbohydrate
- b. Fats
- c. Protein
- d. Vitamin

6. At what age do people suffer the most from malnutrition?

- a. Elderly
- b. Teenagers
- c. Elderly and Children
- d. Teenagers and Children

7. The preparatory steps of glycolysis breaks

- a. Glucose into pyruvates.
- b. Pyruvates into glucose.
- c. Glucose into glyceraldehyde-3-phosphate.
- d. Pyruvates into acetyl-CoA and CO2.

8. Which statement about glycolysis is correct?

- a. Resulting pyruvate molecules are always directly incorporated into the Krebs cycle
- b. Glycolysis cannot proceed under anaerobic conditions
- c. Three molecules of $NADH_2$ and one molecule of $FADH_2$ are produced
- d. Two net molecules of ATP are produced through substrate-level phosphorylation.

9. Which of the following is a product of glycolysis?

- a. GTP
- b. Glucose
- c. NADH
- d. Acetyl CoA

10. Which of the following biological processes will occur under both aerobic and anaerobic conditions in humans?

- a. Citric acid cycle
- b. Glycolysis
- c. Krebs cycle
- d. Urea cycle

11. Meat and fish provide the following important nutrient

- a. Carbohydrate
- b. Protein
- c. Lipid
- d. Fiber

12. Which of the following products is not created by aerobic glycolysis?

- a. Pyruvate
- b. Lactic acid
- c. NADH
- d. ATP

13. Which of the following is not include in the symptoms of kwashiorkor.

- a. Cracked and scaly skin
- b. Loss of appetite
- c. Excess sweating
- d. Learning disability

14. What is the definition of overweight?

- a. BMI > 18.5
- b. BMI 18.5 24.9
- c. BMI 25-29.9
- d. BMI 30 and higher

15. Which of the following is not true of the citric acid cycle?

- a. All enzymes of the cycle are located in the cytoplasm, except succinate dehydrogenase, which is bound to the inner mitochondrial membrane.
- b. In the presence of malonate, one would expect succinate to accumulate.
- c. Oxaloacetate is used as a substrate but is not consumed in the cycle.
- d. Succinate dehydrogenase channels electrons directly into the electron transfer chain.

Match column A with column B and write the correct option (only correct letter) in column C

Sr. No	Α	В		С
16	Lactate	A	polysaccharides starch	
17	Proper growth	В	Macronutrient	
18	Urea	С	Marasmus	
19	Swelling	D	Triose	
20	Fiber	E	Kwashiorkor	
21	Dietary carbohydrates	F	Anaerobic glycolysis	
22	Enlarged liver	G	Non toxic	
23	Pyruvate	Η	Balanced diet	

24	Low calorie intake	Ι	Unsaturated fat	
25	Canola oil	J	Edema	

SECTION B

26. Mention the products of Glycolysis? (2)

27. Write down the names of health issues associated with Obesity. (3)

r		-		-	
1	B	10	B	19	J
2	В	11	В	20	В
3	D	12	В	21	Α
4	Α	13	С	22	Ε
5	В	14	С	23	D
6	D	15	Α	24	С
7	Α	16	F	25	Ι
8	D	17	Н	26	
9	С	18	G	27	

ANSWERS

SECTION B

Q No .26)Mention the product of glycolysis?

Definition

The process in which glucous to s break dawon to gavi energy or privat or lactat is known glycolysis.

- = Step of glycolysis
- = The first step golcose 6 pasphat are converted to froctose

6 pashpat with the helpe of an enzyme know as pashpoglocose

Isomaras.

= The secend step froctose 1,6 poshpate are converted into

DHAP and GAP.

= The third step GAP are converted 1,6 bus poshpate glycerat by an anzyme know as glycelrede 3 poshpate dehidrogenase.

= The forth step 1,3 poshpglcerate are converted into pashpoglycerate

By an enzyme know as poshpglcerate kinase.

= The fift step 3 poshpoglycerate are converted into 2 poshpoglycerate

By an anzyme know as poshpoglycerate maltase.

Q NO 27 write dawon the names of health isssu associated with obasity?

Ans obasaity

= Obasity is the complex desaies anyolving the axsive amount of body fat.

= Obasity is not just a cosmatic concem.

= It is a medical problem that increase your risk of other deasies and health problem such as heart desaies daiebetes and high blood presser

= Heart desires and strouck

= Obesity

= Obesity make you more likely to have haigh blood presser and abnormal chlostrool levele which are risck factors for heart diseas and strouck.

= Diabetes

Obasity can make effect the way your body use insulien to control blood p Sugar level the raise your risk insulien resistance and daibates.

= Certen cancer

Obesity may increas your risk of cancer of the uters overy.

The end