

Student Name

ID number

Total Grade

First Question:

Answer the following questions: 9.5 Marks

1- What are the criteria that must be included in the microorganisms to be included in the food as a probiotics? 2.5 mark

- 1) Microorganisms of human origin
- 2) Resistance to acid conditions of stomach, bile, and digestive enzymes normally found in the human GI tract.
- 3) Ability to colonize human intestine.
- 4) Safe for human consumption.
- 5) Scientifically proven efficacy.

2-What does symiotic food term referes to? 1 mark

The combination of live bacteria in a food and the inclusion of nutrients that can be used by those bacteria as the two traverse the GI tract has resulted in what have been termed symbiotic foods.

The most popular combination to date appears to be Bifidobacterium & fructooligosaccharides.

3-What does EVO refers to? 1mark

Termed extra virgin olive oil (EVO). This is oil that is first expressed under light pressure during processing and not further refined.

4-What is the effect of coffee on type 2 diabetes? 1 mark

Recent research supports the inverse relationship between coffee consumption and Type 2 diabetes.

- It was found that coffee drinking is associated with a higher insulin sensitivity and a lower risk of Type 2 diabetes.

- This is important due to the fact that Type 2 diabetes is a disease that is characterized by a severe reduction in insulin sensitivity, thus leading to adverse metabolic affects on the body.

5-What is metabolic syndrome?

And what type of diet is promoted to prevent metabolic syndrome? 2marks

Metabolic syndrome consists of a combination of conditions, including hypertension, abdominal obesity, increased fibrinogen, insulin resistance, increased blood viscosity, and uric acid levels.

These conditions predispose the individuals to be at high risk for cardiovascular disease .

Recently it has been suggested that metabolic syndrome can be prevented by adherence to the Mediterranean diet.

Best Wishes
Nouf A. Aljarwini

6-How Does Caffeine promote lipolysis? 2 marks

caffeine increases lipolysis by inhibiting the cyclic nucleotide phosphodiesterase, which is responsible for catalyzing the conversion of cyclic AMP to AMP.

The resulting high tissue concentrations of cyclic AMP activate inactive hormone-sensitive lipase and promote lipolysis.

Second Question:

Fill in the blanks: 5.5

1- Lactic acid bacteria (LAB) and bifidobacteria are the most common types of microbes used as probiotics.

2- Saturated fatty Acids are twice as effective at raising blood cholesterol as are PUFA and MUFA at lowering blood cholesterol.

3- Research has suggested that drinking regular coffee may decrease the risk of developing oral/pharyngeal and esophageal cancer bladder colon and rectal cancer, epithelial ovarian cancer and liver cancer.

4-In commercial yogurt, B-galactosidase activity has been found to vary depending on:

1. The manufacturer

2. Whether fruit is added

3. The addition of additional bacteria

4. Whether the yogurt is frozen or not.

Third Question:

Place T in front the correct statement and F in front the wrong one.

5 Marks

F	1-Whole grains are the only source of prebiotics.
F	2-Green olives have greater acidity than black olives.
F	3-Caffeine is the only ingredient in coffee that have beneficial effects on health.
T	4-Probiotics are concerned with bacteria in the small intestine.
T	5-Yogurt reduces the duration of diarrhea in infants.
F	6-Olive oil has been shown to promote the development of mammary glands tumor.
F	7-coffee and caffeine are synonymous.
F	8-Drinking coffee lower the activity of the sympathetic nervous system.
F	9-The most common fibers of probiotics are soluble fibers.
F	10-Drinking coffee is positively correlated with triglycerides level.