

SIR ARTHUR LEWIS COMMUNITY COLLEGE

EXAMINATION SESSION:	December 2018 (Main)
LECTURERS:	Ms E. Biscette, Ms. A. Cadasse, Mrs. S. Eristhee, Ms. N. Fevrier, Ms. A. Hippolyte, Ms. Z. John, Ms. A. Polius, Mr. K. Samuel, Ms G. Severin
PROGRAMME TITLE:	General Agriculture – Associate Degree
COURSE TITLE:	Communication Studies I
COURSE CODE:	COM 103
CLASS (ES):	Year I
DATE:	17 th December, 2018
TIME:	9:00 a.m.
DURATION:	2 hours
ROOM:	OTW – Room 3
INVIGILATORS:	Thomas Polius, Stephen Romain



INSTRUCTIONS:

1. Students are reminded to read **ALL** questions and instructions in each section very carefully.
2. **ANSWER all** questions from Section A, which is worth a total of 25 marks.
3. **ANSWER one** question from Section B which is worth 35 marks.
4. **NB:** Bags, books, as well as writing paper not given by the invigilator should be deposited at the front of the examination room or as otherwise indicated.
5. **NB:** All cell phones are disallowed in the examination room.

Nutrition, Health, and Stress
From Barbara Brehm, *Stress Management*

Nutrition and Stress: Running on Empty

Good nutrition and eating habits contribute significantly to good health and stress resistance. They are especially important during high-stress times, but these may be the times when we are least likely to eat well! The cupboard is bare, we have no time to plan a shopping list and no money to go shopping, so we skip meals or grab whatever fast food is closest at hand. Sometimes we depend on a dining hall whose schedule doesn't match our own, or whose ideas of good nutrition and fine cuisine are limited to meat, potatoes, and overcooked vegetables with lots of butter. Dessert is usually the high point of every meal.

Food and Energy: The Role of Blood Sugar

Everyone has experienced the fatigue and irritability that can result from being hungry. While many of the body's systems can make energy from fat, the central nervous system, including the brain, relies primarily on blood sugar, or glucose, for fuel. When blood sugar falls, these symptoms of fatigue result. Parents and people who work with children have observed the hungry-cranky connection on many occasions. As adults, we tend to attribute our moods to external events and ignore our internal physiology, but hunger can cause crankiness in us just the same.

After you consume a meal, your blood glucose level rises as sugar enters the bloodstream from the digestive tract. A rising blood sugar level signals the pancreas to release **insulin**. Insulin is a hormone that allows sugar to enter the cells and be used for energy. As the glucose gradually leaves the bloodstream, blood glucose levels begin to decrease.

Some people have more trouble regulating blood sugar than others and are prone to **hypoglycemia**, or low blood sugar, especially if they forget to eat or when they participate in physical activity. Symptoms of hypoglycemia include hunger, shakiness, nervousness, dizziness, nausea, and disorientation.

The following are recommendations for keeping your blood sugar at a healthful level without peaks and dips.

Eat Regularly

Your body likes a regular schedule. Skipping meals means guaranteed hypoglycemia in people prone to this condition. Set up times for meals and snacks that are convenient for your schedule and stick to this routine as much as possible. This may mean planning ahead and carrying snacks with you if you are at work or running errands. Many people, including those with hypoglycemia, find that eating five or six small meals or snacks each day helps them feel more energetic than three large meals.

Include Protein Foods at Every Meal

Carbohydrate foods eaten without foods containing much protein are digested and enter the bloodstream quickly and are thus likely to challenge blood sugar regulatory processes in people prone to hypoglycemia. Protein slows digestion and allows blood sugar to rise more gradually. Protein servings may be small: a slice or two of meat or cheese; a half-cup of cottage cheese, yogurt, or tuna salad; small servings of fish or shellfish; a dish made with lentils or other legumes; or soy products like tofu.

Avoid Sugar Overload

When you eat a large amount of carbohydrates, blood sugar rises quickly. A high blood sugar level calls forth a high insulin response, which in some people causes a sort of rebound effect: glucose enters the cells, and the blood sugar level drops quickly, causing hypoglycemia. While you may feel energized for a short period of time after too much sugar, you may eventually begin to feel tired, irritable and hungry.

Drink Plenty of Fluids

Many people fail to maintain optimal levels of hydration. The next time you feel tired, try drinking a glass of water. Dehydration causes fatigue and irritability. Thirst is not an adequate indicator of dehydration; you become dehydrated before you get thirsty. Nutritionists advise drinking at least four cups of fluid each day, more with physical activity or hot weather. Caffeinated and alcoholic beverages don't count. Not only do they increase your stress but they also dehydrate you and thus increase your fluid needs. Your urine will be pale if you are adequately hydrated; dark-colored urine is a sign of dehydration.

Limit Caffeine

Caffeine is a **sympathomimetic** substance, which means its effects mimic those of the sympathetic nervous system and thus cause the fight-or-flight response. If you add caffeine to an already aroused sympathetic nervous system, the results can be stressful and produce high levels of anxiety, irritability, headache, and stress-related illness. Most caffeine drinks, including coffee, tea, and cola soft drinks can also cause stomachaches and nausea, which often get worse under stress.

One or two caffeinated beverages consumed judiciously at appropriate times during the day appear to do no harm for most people. Indeed, a little caffeine can increase alertness. The problem with caffeine is that people are likely to overindulge in it when they are stressed. When summoning the energy necessary to get through the day feels like trying to squeeze water from a rock, they reach for a shot of caffeine. Caffeine cannot substitute for a good night's sleep, however. When you are truly fatigued, caffeine does not help you concentrate; it simply leaves you wired, too jittery to sleep, and too tired to do anything productive.

Eating in Response to Stress: Feeding the Hungry Heart

Few people look on eating and food only in terms of hunger and nutrition. Every culture in the world has evolved rituals around food and eating. Feasting and fasting carry layers of religious, cultural, and emotional overtones. As children, we learn to associate food with security, comfort, love, reward, punishment, anger, and restraint. It's no wonder that we eat for many reasons other than hunger: because we are lonely, angry, sad, happy, nervous or depressed. Unlike alcohol, which we can give up if we are prone to a drinking problem, we must learn to live with food. If eating is the only way we take time to nurture ourselves, we eat more than we are really hungry for. In extreme cases, an ability to control eating can develop into an eating disorder known as **compulsive overeating** that often gets worse under stress.

Food and Mood: The Role of Neurotransmitters

Most people feel relaxed and lazy after a big feast. For this reason many cultures have incorporated a siesta after the large midday meal, and professors who teach a class right after lunch or dinner rarely turn out the lights for a slide show. Why do we feel tired? Certainly our blood sugar should be adequate after eating all that food. Changes in brain biochemistry may be the reason. The food we eat supplies the precursor molecules for manufacturing neurotransmitters that influence our emotions and mood. Some researchers believe that by selecting the right kinds of food we can encourage states of relaxation and alertness.

Big meals, especially those with a lot of fat, take a long time to digest, and with a full stomach we feel like relaxing rather than working. On the other hand, smaller meals low in fat take less time and energy to digest and leave us feeling more energetic and alert.

Meals that are composed primarily of carbohydrates encourage production of the neurotransmitter *serotonin*, which makes us feel drowsy and relaxed. High-carbohydrate meals are a prescription for relaxation and may be the reason some people overeat: it makes them feel good. A small, high carbohydrate snack before bedtime can encourage sleep. Many people find that eating carbohydrates helps them feel less stressed and more **relaxed**. **Some people find that a meal or snack with carbohydrates but little protein, especially in the middle of the day, leaves them feeling tired.**

Meals that include a small serving of protein foods, with or without carbohydrates, encourage alertness by favoring production of neurotransmitters such as *dopamine* and *norepinephrine*. A small lunch that includes protein foods is best for students who need to stay alert for a 1:00 class.

Physical Activity and Stress Resistance

Participation in regular physical activity is one of the most effective ways to increase your stress resistance. Countless studies comparing people with high and low levels of stress resistance have found exercise to be one of the most salient discriminators between these two groups. An important note is that the amount and intensity of exercise required to produce stress management benefits need not be overwhelming. While many athletes enjoy extended periods of intense activity, other people find stress relief with a brisk walk, an hour of gardening, or a game of volleyball on the beach.

Exercise High: Endorphins, Hormones, and Neurotransmitters

In addition to cancelling the negative effects of stress, exercise may induce some positive biochemical changes. Many exercisers report feelings of euphoria and states of consciousness similar to those described by people using drugs such as heroin. Such accounts have led to the use of the term *runner's high*, since these descriptions first came primarily from long-distance runners. These reports have intrigued both exercise scientists and the lay public and have suggested the possibility that certain types of exercise, particularly vigorous exercise of long duration, may cause biochemical changes that mimic drug-induced euphoria.

As scientists have come to understand something of brain biochemistry, some interesting hypotheses have emerged. The most publicized of these has focused on a group of chemical messengers found in the central nervous system (brain and spinal cord) called opioids, since they are similar in structure and function to the drugs that come from the poppy flower: opium, morphine, and heroin. **Beta-endorphins** belong to this group. They not only inhibit pain but also seem to have other roles in the brain as well, such as aiding in memory and learning and measuring emotions. It is difficult for scientists to measure opioid concentrations in the central nervous system of humans, but animal research has suggested that endogenous (produced by the body) opioid concentrations increase with level of exercise: more exercise, more opioids.

Rhythmic Exercise: Relaxed Brain Waves

Rhythmic exercises such as walking, running, rowing, and swimming increase **alpha-wave** activity in the brain. The electrical activity of the brain can be monitored in the laboratory using an instrument called an **electroencephalograph (EEG)**. **Alpha waves** are associated with a calm mental state, such as that produced by meditation or chanting. The rhythmic breathing that occurs during some forms of exercise also contributes to an increase in alpha-wave activity. Rhythmic activity performed to music may be stress relieving in other ways as well.

Comprehension Questions

After reading the selection, answer the following questions by writing down A, B, C, or D.

1. Which is the best statement of the main idea of this selection?
 - A. A balanced diet is the most effective way to decrease stress.
 - B. Regular exercise and good eating habits contribute to stress reduction and both physical and emotional well-being.
 - C. Stress negatively affects mental and physical performance.
 - D. Avoiding sugar overload and including protein at every meal help regulate blood sugar.

2. The pancreas is signaled to release insulin when
 - A. protein is consumed.
 - B. blood glucose levels rise.
 - C. physical activity increases.
 - D. blood sugar levels decrease.

3. By using that term "fine cuisine," the author suggests that
 - A. "fine" meals include meat, potatoes, and vegetables.
 - B. dessert is an important part of "fine dining."
 - C. dining halls do not always serve good, nutritional meals.
 - D. vegetables should be cooked without fats.

4. People who experience symptoms of hypoglycemia should do all of the following except
 - A. eat three large meals per day and vary the times.
 - B. combine proteins with carbohydrates.
 - C. limit sugar intake.
 - D. eat several small meals or snacks per day.

5. The implied similarity between drinking and eating problems is that
 - A. many people who abuse alcohol are also prone to eating problems.
 - B. compulsive eating is treated more easily than compulsive drinking.
 - C. drinking alcohol and eating food sometimes are misguided responses to stress.
 - D. the consumption of both food and alcohol releases endorphins, which reduce stress.

6. The production of norepinephrine is stimulated by eating
 - A. proteins.
 - B. fats.
 - C. carbohydrates.
 - D. caffeine.

7. The beta-endorphins believed to be released by exercise have all of the following benefits except
 - A. inducing feelings of euphoria.
 - B. inhibiting pain.
 - C. regulating blood sugar.
 - D. aiding memory.

8. The activity most likely to increase alpha-wave activity in the brain would be
 - A. playing a game of chess.
 - B. jogging.
 - C. lifting weights.
 - D. playing baseball.

9. For a midnight snack before bed, the author would most likely recommend
 - A. a bagel.
 - B. cappuccino.
 - C. peanuts.
 - D. a chicken leg.

10. The author's attitude toward the use of caffeine by people is that
 - A. caffeine can be used to decrease fear because it arouses the fight-or flight response.
 - B. light amounts of caffeine appear harmless and increase alertness.
 - C. caffeine should be avoided because it causes stomachaches, nausea, headaches and irritability.
 - D. when a person is truly fatigued, caffeine can increase concentration.

Answer the following with T (true) or F (false).

11. Glucose provides the primary fuel for the brain. _____
12. Thirst is an inadequate indicator of the body's optimal hydration level. _____
13. The term *hungry heart* implies a need that food cannot satisfy. _____
14. A glass of cola can be counted toward the number of cups of fluid the body needs each day. _____
15. The author suggests that serotonin is more important for effective studying than dopamine and norepinephrine. _____

Vocabulary

According to the way the underlined word was used in the selection, select A, B, C, or D for the word or phrase that gives the best definition.

1. "to attribute our moods"
 - A. to dissociate
 - B. to credit
 - C. to explain
 - D. to reject
2. "can cause crankiness"
 - A. rage
 - B. irritability
 - C. drowsiness
 - D. fatigue
3. "optimal levels"
 - A. medium
 - B. low
 - C. satisfactory
 - D. regulatory
4. "its effects mimic"
 - A. distort
 - B. imitate
 - C. confuse
 - D. falsify
5. "an already aroused"
 - A. excited
 - B. not stimulated
 - C. settled
 - D. relaxed
6. "beverages consumed judiciously"
 - A. recklessly
 - B. hastily
 - C. cautiously
 - D. carelessly
7. "we are prone"
 - A. damaged by
 - B. inclined
 - C. addicted
 - D. connected

8. "the precursor molecules"

- A. necessary
- B. final
- C. active
- D. forerunner

9. "salient discriminators"

- A. noticeable
- B. instructive
- C. irrelevant
- D. damaging

10. "drug induced euphoria"

- A. insanity
- B. disorientation
- C. exhilaration
- D. serenity

SECTION B: ESSAY WRITING (35 marks)

Select one of the following topics and write an Expository Essay of 400-500 words. Your essay must have a clear thesis statement.

1. It has been said, "Not everything that is learned is contained in books." Compare and contrast knowledge gained from experience with knowledge gained from books.
2. Some people think that it is better for children to grow up in the countryside than in a big city. Compare and contrast growing up in the country to growing up in the city.
3. Technology has made the world a better place to live. Discuss the benefits of technology.
4. People have different ways of escaping the stress and difficulties of modern life. Write an essay in which you explain how to reduce stress.
5. Some people experience difficulty when preparing for a job interview. Write an essay outlining the steps involved in preparing for a job interview.
6. Discuss the causes of stress on a college student.
7. Discuss the benefits of eating what you grow.
8. Explain the implications of failure to reduce crime in St. Lucia.

