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**KOLEJ YAYASAN PELAJARAN JOHOR  
FINAL EXAMINATION**

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**COURSE NAME** : FOOD NUTRITION  
**COURSE CODE** : DCA1083  
**EXAMINATION** : OCTOBER 2018  
**DURATION** : 3 HOURS

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**INSTRUCTION TO CANDIDATES**

1. This examination paper consists of **FOUR (4)** :
  - PART A (20 Marks)
  - PART B (20 Marks)
  - PART C (40 Marks)
  - PART D (20 Marks)
2. Candidates are not allowed to bring any material to examination room except with the permission from the invigilator.
3. Please check to make sure that this examination pack consist of:
  - i. Question Paper
  - ii. Objective Answer Paper
  - iii. Answer Booklet

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**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO**

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*This examination paper consists of **12** printed pages including front page*

## PART A

This part contains of **TWENTY (20)** questions.

Answer **ALL** in Objective Answer Paper.

1. The nutrients that provides kilocalories (energy) are
  - A carbohydrates only
  - B carbohydrates, protein and fat
  - C carbohydrates, protein and minerals
  - D carbohydrates, vitamins and minerals
  
2. Two (2) grams of Fat (lipid) supplies
  - A 9 calories
  - B 18 calories
  - C 90 calories
  - D 180 calories
  
3. Human body (adult) need at least \_\_\_\_\_ of Carbohydrates per day.
  - A 10 to 30 grams
  - B 50 to 100 grams
  - C 120 to 130 grams
  - D 100 to 150 grams
  
4. The group of Complex Carbohydrates are
  - A monosaccharides and disaccharides
  - B lactose and starches
  - C glucose and fructose
  - D starches and fiber

5. Amino acids are the building blocks of
- A carbohydrates
  - B fat or lipid
  - C minerals
  - D protein
6. The process happens in protein, caused by high temperature, as in cooking.
- A caramelization
  - B hydrogenation
  - C gelatinization
  - D denaturation
7. This group of fats are found mostly in food of animal origin.
- A Saturated fat
  - B Unsaturated fat
  - C Polyunsaturated fat
  - D Monounsaturated fat
8. Lipid that is liquid in room temperature is called
- A oil
  - B fat
  - C grease
  - D gelatine
9. The example of fat soluble vitamins are
- A carbohydrates and protein
  - B minerals and vitamin K
  - C vitamin A and D
  - D vitamin B complex

10. One of this function cannot destroy water soluble vitamins in food.

- A Heat
- B Light
- C Cooking in water
- D Keeping food in air tight containers

11. It is defined as water that is intended for human consumption, sealed in bottles or other containers with no added ingredients.

- A Fruit juice
- B Bottled water
- C Carbonated drinks
- D Alcoholic beverages

12. To prevent osteoporosis, we need an adequate supply of

- A fat and minerals
- B iron and zinc
- C calcium and vitamin D
- D vitamin C and zinc

13. It means the feeling of fullness and satisfaction that occurs **AFTER** a meal.

- A Hunger
- B Fasting
- C Satiety
- D Satiation

14. It is the largest components of energy expenditure from our body.
- A Resting
  - B Sleeping
  - C Basal metabolism
  - D Physical activity
15. Weight losses occur when
- A energy intake exceeds energy expended.
  - B energy expended exceeds energy out.
  - C energy expended exceeds energy intake.
  - D energy intake equals energy expended.
16. One of the statements given is NOT a good weight management strategy.
- A Focus on healthy eating habits.
  - B Focus on healthy activity habits.
  - C Always follow an unhealthy eating plan.
  - D Make nutritional adequacy a high priority.
17. The need of \_\_\_\_\_ is more important than the need for any nutrients for our body.
- A water
  - B mineral
  - C vitamin
  - D supplement

18. The period of beginning and ending of the teenage stage.

- A Adult
- B Children
- C Later years
- D Adolescence

19. Not all older adults need this food group.

- A Water
- B Supplement
- C Vegetable group
- D Bread, cereal, rice and pasta group

20. One of these statements does not protect brain functions for older adults.

- A Physical activities
- B Social interactions
- C Intellectual challenges
- D Diet rich in free radicals

**[20 MARKS]**

## PART B

This part contains of **TWENTY (20)** questions.

Answer **ALL** questions in Answer Booklet.

Dextrose	Nonessential amino acids	Retinol	Energy yielding nutrients	Unsaturated fatty acids
Hydrogenation process	Diet	Urine	0.8 gram	Fibers
Spring water	Genetics	Osteoporosis	Adaptive thermogenesis	Satiation
Heat stroke	Longevity	Fat cells	Vitamin C	Puberty
Vitamin D	Satiety	Ascorbic acid	1.0 gram	Lactose

1. It is the food and beverages we normally eat and drink.
2. Nutrients that can be burned as fuel to provide energy for the body.
3. Another name for glucose is \_\_\_\_\_.
4. It refers to Carbohydrates, it comes from plant foods that cannot be digested and cannot be absorbed by the body.
5. In Protein, this group of amino acids that can be made by the body.
6. The needs of protein for both men and women is \_\_\_\_\_ per kilogram of body weight per day.
7. This group of fat/lipid usually comes from plant sources.
8. It is the process in fat/lipid, used to turn oils containing unsaturated fats to saturated fats. It includes margarine, peanut butter and shortening.
9. Another name for Vitamin A is \_\_\_\_\_.

10. Excess of water soluble vitamins is excreted (flows out) in the \_\_\_\_\_.
11. It is the disease of bone loss. Usually a threat for the elderly and women.
12. It is derived from an underground formation from which water flows naturally to the earth surface.
13. It means the feeling of satisfaction and fullness that occurs **DURING** a meal and stop eating.
14. This type of energy is expended when a person must adapt to dramatically changed circumstances, such as fever or stress.
15. It is the true fact for the cause of obesity for human.
16. When energy in exceeds energy out, much of the excess energy is stored in the \_\_\_\_\_.
17. It means a dangerous accumulation of body heat with accompanying loss of body fluid.
18. The process of physical developing from a child to an adult is called \_\_\_\_\_.
19. It means long duration of life.
20. Vitamins that are rich in Antioxidants are Vitamin E, Beta Carotene (from Vitamin A) and \_\_\_\_\_.

**[20 MARKS]**



**PART C**

This part contains of **TWELVE (12)** questions. Answer **ALL** questions.

Answer the questions in Answer Booklet.

**QUESTION 1**

Draw a complete Food Guide Pyramid that includes the group of food and the servings as well.

[5 MARKS]

**QUESTION 2**

Identify **FIVE (5)** harmful effect of high sugar intake in our everyday diet.

[5 MARKS]

**QUESTION 3**

List **THREE (3)** functions of protein that are important to our body.

[3 MARKS]

**QUESTION 4**

Calculate in details the total **FAT** (lipid) needed for Afiq Ariffin if his age is 20 years old and he is an active male.

[3 MARKS]

**QUESTION 5**

Define **THREE (3)** ways how to preserve vitamins in food.

[3 MARKS]

**QUESTION 6**

Identify in details the difference between Major minerals and Trace minerals.

[3 MARKS]

**QUESTION 7**

List **THREE (3)** main categories how the total energy expands (energy out) from the human body.

[3 MARKS]

**QUESTION 8**

Identify **THREE (3)** weight management strategies for **WEIGHT GAIN**.

[3 MARKS]

**QUESTION 9**

a. Define **SPORT DRINKS** in details.

[2 MARKS]

b. Give an example of sport drinks brands that you know.

[1 MARKS]

**QUESTION 10**

Identify **THREE (3)** reasons why breast milk is recommended for infant, compared to iron fortified formula milk (powdered milk).

[3 MARKS]

**QUESTION 11**

State **THREE (3)** strategies for growing old healthfully.

[3 MARKS]

**QUESTION 12**

a. Define the meaning of **ANTIOXIDANTS** in details

[2 MARKS]

b. Named a few types of food that contain antioxidants.

[1 MARK]

[40 MARKS]

## PART D

This part contains of **TWO (2)** questions. Answer **ALL** questions.

Answer the questions in Answer Booklet.

**QUESTION 1**

"Calorie Needs Calculation" has been used by healthy professionals and food nutritionist to prevent obesity and underweight that is not healthy to human.

a. Identify the groups of nutrients that are rich in calories.

[2 MARKS]

b. Sharina Fadilah is a full time executive in one of the government agencies.

Calculate in details the Calorie Needs for **HER**, if her activity considered **MODERATE** and her weight is 58 kg.

[8 MARKS]

The calculation formula are given for references.

1 kg	=	2.2046 pound
Gender	=	11 for male 10 for female
Activity	=	20% for light 30% for sedentary 40% for moderate 50% for active

**QUESTION 2**

Vitamins are micronutrients because they are only needed in small amounts for the human body. They are classified into two groups; that is Fat Soluble Vitamins and Water Soluble Vitamins.

a. Define the meaning of water soluble vitamins.

[2 MARKS]

b. For vitamin C and folate (water soluble vitamins) given below, identify in details the:

<u>Vitamin C (Ascorbic acid)</u>	<u>Folate</u>
i. Recommended intake.	i. Recommended intake.
ii. Functions.	ii. Functions.
iii. Deficiency symptoms.	iii. Deficiency symptoms.
iv. Dietary sources.	iv. Dietary sources.

[8 MARKS]

**END OF QUESTION PAPER**