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**KOLEJ YAYASAN PELAJARAN JOHOR
FINAL EXAMINATION**

SUBJECT	:	FOOD NUTRITION
SUBJECT CODE	:	DCA 1083
DATE	:	11 OCTOBER 2015
DURATION	:	2.00 PM – 5.00 PM (3 HOURS)

INSTRUCTIONS TO CANDIDATES

1. This question paper consists of **THREE (3)** sections:
Section A (15 Marks)
Section B (15 Marks)
Section C (70 Marks)
2. Answer **ALL** questions from all parts.
3. Candidate is not allowed to bring any material into the examination room **EXCEPT** with the permission from the invigilator.
4. Please check to make sure that this examination pack consists of:
 - i. Question Paper
 - ii. Answering Booklet
 - iii. OMR Form

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

This examination paper consists of 10 printed pages including front page.

PART A (Total: 15 Marks)**MULTIPLE CHOICE QUESTIONS****INSTRUCTION: Answer ALL questions.****Please use the OMR sheet provided.**

1. The example of Micronutrient is:
 - A. Carbohydrates
 - B. Fat
 - C. Protein
 - D. Vitamins and minerals

2. The nutrient that provides energy for human body is:
 - A. Antioxidant
 - B. Vitamins and mineral
 - C. Protein
 - D. Water

3. In food guide pyramid, one(1) serving size equals to:
 - A. 250 grams or 2 cups
 - B. 228 grams or 1 cup
 - C. 2500 grams or 2 cups
 - D. 2280 grams or 1 cup

4. Storing, mixing, dissolving and continuing digestion of food happens in the:
 - A. Mouth
 - B. Liver
 - C. Stomach
 - D. Esophagus

5. If Wayne Gerald weight is 87 kg and his height is 170 cm, his Body Mass Index (BMI) is considered:
 - A. Underweight
 - B. Normal
 - C. Overweight
 - D. Obesity

6. Protein contains:
- A. Carbon and Hydrogen only
 - B. Carbon, Hydrogen and Oxygen only
 - C. Carbon, Oxygen, Hydrogen and Antioxidant
 - D. Carbon, Hydrogen, Oxygen and Nitrogen
7. "A denaturation is a process where it uncoils and losses its shape, causing it to lose ability to function. It can be caused by high temperature or whipping." This statement refers to:
- A. Carbohydrates
 - B. Protein
 - C. Fat
 - D. Vitamins and minerals
8. This symptom is usually seen in children who are getting totally inadequate amount of certain nutrient. The child has protruding abdomen due to edema (swelling).
- A. Kwashiorkor
 - B. Marasmus
 - C. Diabetes
 - D. Xerophthalmia
9. It is the deterioration of fat, resulting in undesirable flavors and odors.
- A. Hydrogenation
 - B. Lipoprotein
 - C. Rancidity
 - D. Gelatinization
10. The example of food that is rich in Lecithin is:
- A. Egg
 - B. Fish
 - C. Meat
 - D. Vegetables
11. This type of lipid (fat) only can be found in foods of animal origin, such as egg yolks, meat, poultry, fish milk and milk product. It is not found in plant food.
- A. Antioxidant
 - B. Lipoprotein
 - C. Cholesterol
 - D. Triglycerides

12. Vitamin B Complex and Vitamin C are in the group of:
- A. Major minerals
 - B. Trace minerals
 - C. Fat soluble vitamins
 - D. Water soluble vitamins
13. To prevent Osteoporosis, we need to get an adequate supply of:
- A. Calcium and Vitamin C
 - B. Calcium and Vitamin D
 - C. Calcium and Cholesterol
 - D. Calcium and Zinc
14. One of the answers below IS NOT the Major Mineral:
- A. Iron
 - B. Calcium
 - C. Chloride
 - D. Magnesium
15. The group of human who DO NOT need supplements is:
- A. People who eats a well-balanced diet everyday
 - B. Women who is pregnant or lactating women
 - C. Elderly people who are eating poorly
 - D. Drug addicts or alcoholics

PARTB (Total: 15 marks)**TRUE (T) OR FALSE (F)****INSTRUCTION: Answer ALL questions.****Please use the OMR sheet provided.**

1. _____ Diet means the food and beverages we normally eat and drink.
2. _____ If we consume more calories than we burn, we lose weight.
3. _____ Excess Carbohydrates, excess protein and excess fat can contribute to underweight problem.
4. _____ To maintain body weight in a healthy range, balance kcalories from foods and beverages with kcalories expended (burned).
5. _____ The example of food that is rich in Antioxidants are such as eggs, meat, poultry and fish.
6. _____ Physical inactivity is linked to the major degenerative diseases, such as heart disease, cancer, stroke, diabetes and hypertension.
7. _____ Obese people have less fat cells than healthy-weight people; their fat cells are also smaller.
8. _____ Hyperthermia means an above-normal body temperature.
9. _____ It is good and safe for the athletes to take anabolic steroids for building muscles and increase energy.
10. _____ Children who learn to enjoy physical play and exercise, both at home and at school, are to maintain active lifestyle as adults.
11. _____ Breast milk is nutritionally less superior to any formula or other type of feeding for the baby.
12. _____ If teenager frequently drink soft drinks instead of milk, they will have enough calcium in their diets to support bone growth.

13. _____ Nutrients rich in free radicals minimize the damage from antioxidants and other disease.
14. _____ Society uses the age of 65 years to define the transition point between middle age and old age.
15. _____ Human expend energy when they are physically fit. They also expend energy when they are resting quietly.

PART C (Total: 70 marks)**SHORT ESSAY**

INSTRUCTION: Answer ALL questions. This section consists of 5 questions.

Please use the answer booklet provided.

QUESTION 1 (10 Marks)

Vitamins are labelled as "micro" nutrients because they are only needed in small amounts to do their job properly. Vitamins are classified into two groups; that is Fat soluble vitamins and Water soluble vitamins.

a. Explain in detail the difference between Fat soluble vitamins and Water soluble vitamins.

(3 Marks)

b. Complete the table below with another name (chemical name) for:

Vitamin A	i.
Vitamin D	ii.
Vitamin E	iii.
Vitamin K	iv.

(4 Marks)

c. Identify **TWO (2) FUNCTIONS** of Vitamin A and a few **EXAMPLES** of dietary sources (food) that is rich in Vitamin A.

(3 Marks)

QUESTION 2 (15 Marks)

At the extremes, both overweight and underweight can create health risk. Weight management strategies are a key component of good health.

- a. List **THREE (3)** causes of underweight to people and **THREE (3)** three strategies how to gain their weight.

(6 Marks)

- b. Identify **TWO (2)** causes of overweight and obesity to people and **FOUR (4)** strategies how to lose their weight.

(6 Marks)

- c. Explain in details the difference between Anorexia Nervosa and Bulimia Nervosa.

(3 Marks)

QUESTION 3 (15 Marks)

In order to stay healthy, we must consume a healthy diet by referring the Food Guide Pyramid.

- a. Draw a complete diagram of Food Guide Pyramid that includes servings and food group.

(10 Marks)

- b. From the diagram you draw, identify **TWO (2)** examples of food that is rich in Protein.

(2 Marks)

- c. Complete the table below with another **THREE (3)** characteristics of nutritious diet.

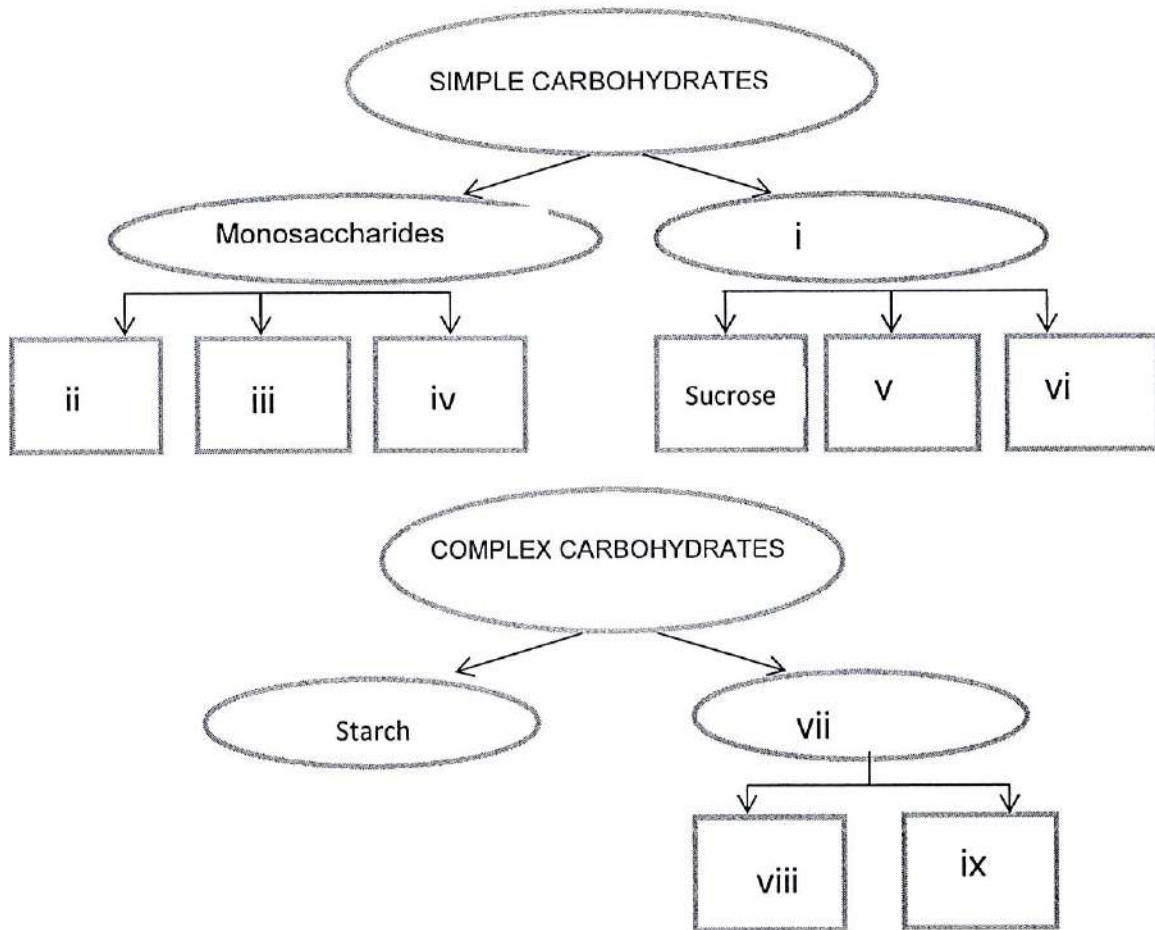
Adequate
i.
ii.
iii.

(3 Marks)

QUESTION 4 (15 Marks)

Carbohydrates can be separated into two categories, Simple carbohydrates and Complex carbohydrates.

a. Complete the table given with the correct chemical sugar.



(9 Marks)

b. Give **FOUR (4)** functions of Carbohydrates to human body.

(4 Marks)

c. Explain in detail the GELATINIZATION process in Carbohydrate.

(2 Marks)

QUESTION 5 (15 Marks)

Calorie Needs Calculation is a method of estimating the calorie needs by the body. By estimating calorie needs, we will know how much the total calorie our body need per day.

References given:

1kg = 2.2046 pound

Gender = 11 for Male

= 10 for Female

Activity = 20% for light

= 30% for sedentary

= 40% for moderate.

= 50% for active

Mr. Williby Wright is a pensioner and love to travel around the world as a tourist.

a. CALCULATE IN DETAILS the POUND needed for him if his activity considered SEDENTARY and his weight is 65kg.

(3 marks)

b. CALCULATE IN DETAILS the calorie needs for his:

i. Basal Metabolism

(3 marks)

ii. Physical Activity

(3 marks)

iii. Digestion and Absorption

(3 marks)

iv. The Total Calorie Needs by Mr. Williby Wright.

(3 Marks)

END OF QUESTION PAPER

