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**KOLEJ YAYASAN PELAJARAN JOHOR  
FINAL EXAMINATION**

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**COURSE NAME : FOOD NUTRITION**  
**COURSE CODE : DCA1083**  
**EXAMINATION : OCTOBER 2019**  
**DURATION : 3 HOURS**

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**INSTRUCTION TO CANDIDATES**

1. This examination paper consists of **FOUR (4)** parts :
  - 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. Answering 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*

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**PART A**

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

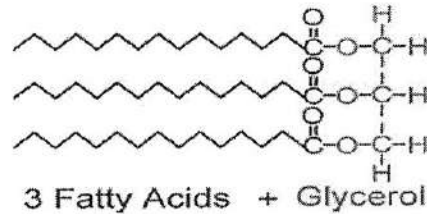
Answer ALL in Objective Answer Paper.

1. How many kilocalorie of 1 gram carbohydrates?
  - A 2 kcal.
  - B 4 kcal.
  - C 7 kcal.
  - D 9 kcal.
  
2. How many litres of total adequate intake of water for women per day?
  - A 1.7 litres.
  - B 2.7 litres.
  - C 3.7 litres.
  - D 4.7 litres.
  
3. What is the deficiency symptom of Vitamin D among the children?
  - A Scurvy.
  - B Rickets.
  - C Dry skin.
  - D Dermatitis.
  
4. Which nutrient that resides in skin, hair, nails, muscle and blood?
  - A Lipid.
  - B Protein.
  - C Mineral.
  - D Carbohydrate.

5. What is rancidity?
- A The swelling of starch after water absorption.
  - B The browning of food after heat being applied.
  - C The undesirable odour and flavour of fat deterioration.
  - D The conversion of liquid vegetable oils into solid or semi-solid fats.
6. What is kilocalorie (kcal)?
- A It is a substances present only in foods of animal origins.
  - B It is the important substances in food that provide energy.
  - C It is the important substances to promote the growth of your body.
  - D It is a unit of energy that indicates the amount of energy contained in food.
7. What is the normal range for human body temperature?
- A 33 °C – 34 °C.
  - B 34 °C – 35 °C.
  - C 35 °C – 36 °C.
  - D 36 °C – 37 °C.
8. What is the range of Basal Metabolic Index (BMI) for overweight person?
- A 20 until 24.
  - B 25 until 30.
  - C 19 and below.
  - D 30 and above.
9. What happened to a person's weight if the "energy in" is less than the "energy out"?
- A A person gain weight.
  - B A person loses weight.
  - C A person maintaining weight.
  - D A person's weight up and down.

10. What is the meaning of Latin word, "infans"?
- A Unable to eat.
  - B Unable to walk.
  - C Unable to think.
  - D Unable to speak.
11. Which of the following are rich in antioxidants?
- A Free radicals and Vitamin D.
  - B Carbohydrates, Protein and Fat.
  - C Major Minerals and Trace Minerals.
  - D Vitamin E, Beta Carotene and Vitamin C.
12. Normally, when females does completed their puberty?
- A 13 years old.
  - B 15 years old.
  - C 17 years old.
  - D 19 years old.
13. What is the age group for people who are in 65 to 74 years old?
- A Old old.
  - B Longevity.
  - C Oldest Old.
  - D Young Old.
14. What is the glycaemic index level for foods that have range around 56 to 69?
- A Low glycaemic index.
  - B High glycaemic index.
  - C Medium glycaemic index.
  - D Fluctuate glycaemic index.

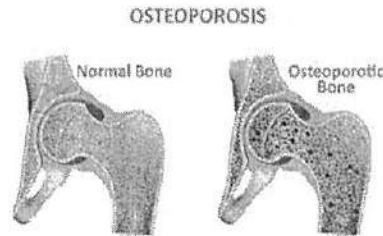
15. What is the name of molecules in **Diagram 1**?



**Diagram 1**

- A Glycerides.
  - B Cholesterol.
  - C Triglycerides.
  - D Phospholipids.
16. What is the meaning of Greek words, "protein"?
- A First.
  - B Third.
  - C Fourth.
  - D Second.
17. Which of the following are the factors that can destroy vitamins?
- A Heat.
  - B Light.
  - C Alkalinity.
  - D All of the above.
18. Which of the following required the highest energy expenditure?
- A Physical activities.
  - B Basal metabolisms.
  - C Thermic effect of food.
  - D Digestion and absorptions.

19. What is the main cause of the disease in **Diagram 2**?



**Diagram 2**

- A Lack of lipid.
  - B Lack of protein.
  - C Lack of trace mineral.
  - D Lack of major mineral.
20. Which of the following foods are the healthy sources of carbohydrates?
- i. Rye
  - ii. Fries
  - iii. Quinoa
  - iv. White Bread
- A i, ii
  - B i, iii
  - C ii, iv
  - D i, ii, iii

**[20 MARKS]**

**PART B**

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

Answer ALL questions in Answering Booklet.

Free radicals	Older adults	Muscle	Hyperthermia
Thermic effect of food	Dietary supplements	Essential amino acids	Non-essential amino acids
Major minerals	Hypoglycaemia	Gelatinization	Calcium
Saturated fat	Vitamin C	Satiety	Bottled water
Antioxidants	Cholesterol	Milk	Micronutrient

1. Incomplete protein contains at least one \_\_\_\_\_.
2. Artesian well and spring water are the sources of \_\_\_\_\_.
3. The energy needed to digest and absorb food is called as \_\_\_\_\_.
4. A symptom when the blood sugar levels are low is known as \_\_\_\_\_.
5. The deficiency of \_\_\_\_\_ can lead to poor wound healing and scurvy.
6. Glutamic acid, Glutamine and Aspartic acid are in the group of \_\_\_\_\_.
7. One of the strategies to gain weight is to drink plenty of juice and \_\_\_\_\_.
8. If we consume too much \_\_\_\_\_, we might have high blood cholesterol level.
9. A soft waxy substance present only in foods of animal origin is called as \_\_\_\_\_.



10. People who are active, physically fit and eat well balanced meals do not need \_\_\_\_\_.
11. The unstable and highly reactive atoms that can cause cancers are known as \_\_\_\_\_.
12. The nutrients that are not provide energy or calories such as vitamins, minerals and water are categorised as \_\_\_\_\_.
13. The process in which starches, when heated in liquid, absorb water and swell in size is called as \_\_\_\_\_.
14. The feeling of fullness and satisfaction that occurs after a meal until the next meal time is called as \_\_\_\_\_.
15. The age related eye diseases such as cataract and macular degeneration are common among the \_\_\_\_\_.
16. Before the puberty or the childhood years, the proportion of fat and \_\_\_\_\_ was similar in males and females.
17. Vitamin C, Vitamin E and Beta-carotene are the examples of foods rich in \_\_\_\_\_ that low the rates and destroy cancers.
18. The body temperature is higher than normal body temperature is called as \_\_\_\_\_ in which that lead to loses body fluid.
19. Milk and dairy products are the examples of good sources of \_\_\_\_\_ for the body, especially for bone and tooth structure.
20. Nutrients that are needed relatively large amounts in the diet in which at least over than 100 milligrams daily is known as \_\_\_\_\_.

[20 MARKS]

**PART C**

This part contains of **TEN (10)** questions.

Answer ALL questions in Answering Booklet.

**QUESTION 1**

- a. Give **one (1)** function of carbohydrates.

(1 mark)

- b. List down **three (3)** types of diseases that occurred when we eat too many foods and beverages rich in added sugars.

(3 marks)

**QUESTION 2**

- a. State **two (2)** factors influencing food selection.

(2 marks)

- b. Explain the right sequence for human digestive system.

(3 marks)

**QUESTION 3**

- a. Define adolescence.

(1 mark)

- b. Give **two (2)** nutrients that are often lacking in adolescent diets.

(2 marks)

**QUESTION 4**

a. Identify **two (2)** functions of water.

(2 marks)

b. State **three (3)** forms of dietary supplements that are available in the market.

(3 marks)

**QUESTION 5**

a. List down **two (2)** types of gastric surgery.

(2 marks)

b. Other than surgery, state **one (1)** aggressive treatment that can be used for obese people.

(1 mark)

**QUESTION 6**

a. Identify **three (3)** ways of body energy expenditure.

(3 marks)

b. How can a person make his body weight stable and is in energy balance?

(1 mark)

**QUESTION 7**

Identify the component involved in the process of fat and cholesterol break down, in which the fat was changed into water soluble form.

(4 marks)

**QUESTION 8**

a. Give differences between Lysine and Glutamic acid.

(3 marks)

b. Explain the differences between complete proteins and incomplete proteins.

(2 marks)

**QUESTION 9**

State the differences between water soluble vitamins and fat soluble vitamins.

(2 marks)

**QUESTION 10**

a. State **three (3)** environmental factors that can generate free radicals.

(3 marks)

b. Give your own opinion on how to reduce the risks of cancers that caused by free radicals.

(2 marks)

**[40 MARKS]**

**PART D**

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

Answer ALL questions in Answering Booklet.

**QUESTION 1**

Malik compete in endurance sports lasting longer than three hours. It seems that the concentration of sodium in his blood was decreased. On the next day, he continue his sport training under the hot sunlight. He collapse since his body temperature is higher than normal human body temperature.

Analyse the situation above by including the symptoms and the prevention methods.

(10 marks)

**QUESTION 2**

If Maria's weight is 42kg and SHE is an active person, calculate the calorie needs for HER.

Formula to calculate calorie needs is:

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

(10 marks)

**[20 MARKS]**

**END OF QUESTION PAPER**

