



**KOLEJ YAYASAN PELAJARAN JOHOR
ONLINE FINAL EXAMINATION**

COURSE NAME : FOOD NUTRITION
COURSE CODE : DCA1083
EXAMINATION : DECEMBER 2021
DURATION : 3 HOURS

INSTRUCTION TO CANDIDATES

1. This question paper consists of **THREE (3)** parts :
PART A (20 Marks)
PART B (60 Marks)
PART C (20 Marks)
2. Please refer to the detailed instructions in this question paper.
3. Answer ALL questions in the answer sheet which is A4 size paper
(Or other paper with the consent of the relevant lecturer).
3. Write your details as follows in the upper left corner for each answer sheet:
 - i. Student Full Name
 - ii. Identification Card (I/C) No.
 - iii. Class Section
 - iv. Course Code
 - v. Course Name
 - vi. Lecturer Name
4. Each answer sheet must have a page number written at the bottom right corner.
5. Answers should be **neat and clear in handwritten form**.

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

This examination paper consists of 12 printed pages including front page

PART A

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

Answer ALL questions in Answer Sheet.

1. If a person have BMI (Body Mass Index) range from 25 until 29, his/her weight is _____.
 - A obese
 - B normal
 - C overweight
 - D underweight

2. The excess amount of _____ in our body will be generated as the body _____.
 - A energy, fat
 - B calorie, energy
 - C protein, energy
 - D kilocalorie, nutrient

3. _____ is an estimation of the energy required to regulate body process.
 - A 20% - 35%
 - B 40% - 55%
 - C 50% - 65%
 - D 60% - 75%

4. Which organ in the human digestive system is involved in secretion of insulin?
 - A Liver.
 - B Lungs.
 - C Stomach.
 - D Pancrease.

5. The primary energy provided to fuel sports activity is provided by _____.
 - A dietary carbohydrates
 - B protein supplementation
 - C dietary polyunsaturated fats
 - D daily vitamins and minerals intake

6. Total energy expended through metabolic processes and physical activities is equal to energy in from the food calorie intake is referred to _____.
A calorie in
B energy in
C energy out
D energy balance
7. Which organ is involved in the secretion of gastric juice during the digestion process?
A Mouth.
B Stomach.
C Small intestines.
D Large intestines.
8. Which important mineral is found in all foods in the Dairy Groups?
A Iron.
B Sodium.
C Calcium.
D Magnesium.
9. What is the specific enzyme released during the digestion of fat?
A Lipase.
B Pepsin.
C Amylase.
D Gelatinase.
10. About how much of your plate should be carbohydrates?
A One half.
B One quarter.
C Three quarters.
D All of the above.

11. Sugar in dairy products is commonly known as _____.
- A Maltose
 - B Lactose
 - C Sucrose
 - D Fructose
12. A diet high in sugar can be linked to
- i. Scurvy
 - ii. Diabetes
 - iii. Kwashiorkor
 - iv. Heart disease
- A i, ii
 - B i, iii
 - C ii, iv
 - D i, ii, iii
13. How many calories are found in one gram of fat?
- A 2
 - B 4
 - C 9
 - D 12
14. A hormone that increases the movement of glucose from the bloodstream into the body cell was known as _____.
- A insulin
 - B lipoxin
 - C thyroxine
 - D melatonin
15. Which nutrient supplies calories per gram as much as carbohydrates?
- A Fat.
 - B Water.
 - C Protein.
 - D Vitamin.

16. The amount of protein needed by both men and women is _____ grams per kilogram of body weight.
- A 0.80
 - B 0.85
 - C 0.90
 - D 0.95
17. Eating large amounts of animal based protein will increase the _____ in the body.
- A linoleic acid
 - B linolenic acid
 - C saturated fats
 - D unsaturated fats
18. What is the condition that is caused by a Vitamin D deficiency among children?
- A Scurvy.
 - B Rickets.
 - C Marasmus.
 - D Osteomalacia.
19. What is the name of the protein that can be obtained from food?
- A Valine.
 - B Glutamine.
 - C Aspartic acid.
 - D Glutamic acid.
20. A human body use protein
- i. As a messenger
 - ii. To work as enzymes
 - iii. As a defensive mechanism
 - iv. As a main sources of energy for metabolism
- A i, ii
 - B i, iii
 - C ii, iv
 - D i, ii, iii

[20 MARKS]

PART B

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

Answer ALL questions in Answer Sheets.

QUESTION 1

Maria is a netball player and she wants to be physically fit before the final games. Therefore, it's important for her to keep track of her calorie intake on a regular basis in order to prevent gaining weight. Based on the information given below, answer the following questions:

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

Table 1

If Maria's weight is 63 kilogram, assess her energy expenditure for:

- Basal metabolism. (3 marks)
- Physical activity. (2 marks)
- Absorption and digestion and total calorie need per day. (3 marks)

QUESTION 2

- Give **one (1)** type of sugar that is often called as dextrose. (1 mark)
- Distinguish between **two (2)** types of simple carbohydrates. (2 marks)

c. How does fiber help in preventing constipation?

(2 marks)

QUESTION 3

a. Describe **one (1)** protein function.

(1 mark)

b. Give **two (2)** differences between complete and incomplete protein.

(2 marks)

c. Classify **two (2)** types of diseases related with protein deficiencies.

(2 marks)

QUESTION 4

a. Clarifying the concept of hydrogenization of fat.

(1 mark)

b. Distinguish **two (2)** reasons that make fats are essential to human body.

(2 marks)

c. Discover the function of lipoprotein in human body.

(2 marks)

QUESTION 5

a. Describe the word sedentary behaviours.

(2 marks)

b. Discover **two (2)** types of activity that should be done everyday for adult as suggested in Physical Activity Pyramid.

(2 marks)

- c. Give **two (2)** examples of activities that required 30% – 50% of energy expenditure.

(2 marks)

QUESTION 6

- a. Find the root cause of a person's potentially life-threatening eating disorder.

(1 mark)

- b. Clarify the difference between anorexia nervosa and bulimia nervosa.

(1 mark)

- c. Explain **two (2)** factors that cause a person's BMI to be higher than 30.

(2 marks)

- d. People who are obese and are unable to achieve adequate weight loss with diet and exercise is able to go to other options such as taking drugs (medicine) as prescribed by the doctor. However, for certain types of conditions, surgery also can be the other option for them. Hence, compare **two (2)** types of surgery involved that can help in weight loss.

(4 marks)

QUESTION 7

- a. Use your experience of health to define fitness.

(1 mark)

- b. Discover at least **one (1)** component in sport drinks.

(1 mark)

- c. Predict **three (3)** benefits of being physically fit.

(3 marks)

QUESTION 8

- a. Indicate at least **one (1)** nutrient that female teens need the most.
(1 mark)
- b. Explain the benefits of Vitamin D and calcium for infants.
(2 marks)
- c. Compare the pubertal development between boys and girls.
(2 marks)

QUESTION 9

- a. Classify **three (3)** commonly used age groups in human life cycle.
(3 marks)
- b. Discover at least **two (2)** types of nutrients needed by the elderly.
(2 marks)
- c. What should an older adult do when they have special health issues such as deterioration of senses like taste and smell?
(1 mark)
- d. Choose **one (1)** breakfast food that is considered healthier for adults.
(1 mark)

QUESTION 10

a. What is an antioxidant?

(1 mark)

b. Describe the relationship between the free radical and antioxidant.

(2 marks)

c. Find out **two (2)** types of vitamins that are useful to defense against free radicals.

(2 marks)

d. Choose **one (1)** activity that can cause production of free radicals.

(1 mark)

[60 MARKS]

PART C

This part consists of **FOUR (4)** questions.

Answer ALL questions in Answer Sheet.

QUESTION 1

Based on your understanding, explain a complete process of human eating behaviour.

(5 marks)

QUESTION 2

- a. Underweight can caused several problems especially to our health. For instance, a person might have to deal with life-threatening eating disorder like anorexia nervosa and bulimia nervosa. Hence, give **two (2)** causes of underweight that eventually can lead to these problems.

(2 marks)

- a. Overweight and obesity can cause problems like perception and prejudices from others. They might suffer embarrassment and eventually affect their psychological health. Things that make it worst when it's also affect their health. Hence, you must prepare a full set of weight-loss-friendly menus (breakfast, lunch and snack time). The menu you're given should be focused on your knowledge of weight-loss strategies.

(3 marks)

QUESTION 3

The word infant is derived from Latin words “infans” which means unable to speak or speechless. Infants need a lot of nutrients especially Vitamin C and D, Vitamin B12, Folate, Calcium and Iron. Meanwhile, adolescence need more iron, calcium and folate. Therefore:

- a. Define adolescence.

(2 marks)

- b. Discover **two (2)** reasons that make calcium are essentials for both infants and adolescence.

(3 marks)

QUESTION 4

- a. How can you stay healthy as you grow older?

(1 mark)

- b. Present **four (4)** points that illustrate the ageing mechanism of the human body based on physiological changes in the human body.

(4 marks)

[20 MARKS]

END OF QUESTION PAPER