



**FACULTY OF CULINARY ARTS**

**FINAL EXAMINATION**

Student ID (in Figures) : 

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Student ID (in Words) : \_\_\_\_\_  
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Course Code and Name : **CUL1553.V2 Nutrition and Dietary Requirement in Culinary Arts**  
 Semester and Year : January – April 2021  
 Lecturer/Examiner : Wan Ruzanna Wan Ibrahim  
 Duration : 3 Hours

**INSTRUCTIONS TO CANDIDATES**

1. This question paper consists of 3 parts:
  - PART A (20 marks) : Answer all TWENTY (20) multiple choice questions. Answers are to be shaded in the Multiple Choice Answer Sheet provided.**
  - PART B (50 marks) : SIX (6) short answer questions. Answers are to be written in the Answer Booklet provided.**
  - PART C (30 marks) : Answer ALL questions. Write your answers in the Answer Booklet(s) provided.**
2. Candidates are not allowed to bring any unauthorized materials except writing equipment into the Examination Hall. Electronic dictionaries are strictly prohibited.
3. This question paper must be submitted along with all used and/or unused rough papers and/or graph paper (if any). Candidates are NOT allowed to take any examination materials out of the examination hall.
4. Only ballpoint pens are allowed to be used in answering the questions, with the exception of multiple choice questions, where 2B pencils are to be used.

**WARNING:** The University Examination Board (UEB) of BERJAYA University College regards cheating as a most serious offence and will not hesitate to mete out the appropriate punitive actions according to the severity of the offence committed, and in accordance with the clauses stipulated in the Students’ Handbook, up to and including expulsion from BERJAYA University College.

**Total Number of pages = 9 (Including the cover page)**

**PART B : SHORT ANSWER QUESTIONS (50 MARKS)**

**INSTRUCTION(S) :** Answer **SIX (6)** short answer questions. Write your answers in the Answer Booklet(s) provided.

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1. Define basal metabolism rate (BMR). (4 marks)
2. List down **FIVE (5)** factors influence basal metabolism rate (BMR). (5 marks)
3. "Protein" is derived from the Greek word meaning "first", the main function of protein is in a very broad sense to build and maintain body.
  - a. Distinguish between complete protein and incomplete protein. (10 marks)
  - b. Examine the process of denaturation that occurs in most of the protein products. Briefly give an example to support your answer. (5 marks)
4. Distinguish the difference between food allergies and food intolerance with relevant examples. (8 marks)
5. Identify **FOUR (4)** functions of cholesterol in human body. (8 marks)
6. Thousands of studies have shown the critical function of fish oil, in particular its most important essential fatty acid to overall cardiovascular well-being at any age. Essential fatty acid is the most deficient nutrient in the 21<sup>st</sup> century diet. Examine **FIVE (5)** importance of essential fatty acid in our food. (10 marks)

**END OF PART B**

**PART C : ESSAY QUESTIONS (30 MARKS)**

**INSTRUCTION(S) :** Answer **ALL** questions. Write your answers in the Answer Booklet(s) provided.

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1. Case study:

Neymar is starting an exercise program. He plans to run before lunch and then play racket ball every night after dinner. His typical diet is listed below:

**Neymar's Typical Diet**

<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
Orange Juice Coffee	Big Mac French Fries Milkshake	Steak Baked potato with sour cream and butter Green beans in butter sauce Salad with Italian dressing Whole milk

Once he begins his exercise program he finds that he feels tired and hungry before his late-morning run. After running he doesn't have much of an appetite so he saves his fast food lunch until mid-afternoon. He is still hungry enough to eat dinner at home with his family, but finds that he is getting stomach cramps and is too full when he goes to play racket ball.

- a. Examine how Neymar might change his diet so it is better suited to his exercise program. (10 marks)
- b. Recommend **FIVE (5)** changes that Neymar might take to have a more balanced program. (10 marks)

2. Various forms of soybeans are eaten in Malaysia: soy oil, tofu (bean curd), soy sauce, miso, *tempeh*, meat analogs, soy cheese, soymilk, soy-flour and soy nuts. Much research is being done on the health effects of soy. Food containing soy protein may reduce the risk of coronary heart disease when it is consumed as part of diet low in saturated fat and cholesterol. Soybeans contain phytoestrogens, which are chemically similar to estrogen, the female hormone. Some possible health effects of soy are due to the fact that phytoestrogen can mildly mimic the action of estrogen in the body. Some studies suggest that soy food may reduce hot flashes in women after menopause when natural estrogen is lacking, as well as prevent bone loss. Soy's possible role in preventing breast cancer is uncertain.

As a health advisor, make use of the information above to advise your client regarding the importance of protein for daily intake.

(10 marks)

**END OF EXAM PAPER**