Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2014/2015

COURSE NAME	:	FUNCTIONAL FOODS AND NUTRACEUTICALS
COURSE CODE	:	BWD 30703
PROGRAMME	:	3 BWD
EXAMINATION DATE	:	DECEMBER 2014 / JANUARY 2015
DURATION	:	3 HOURS
INSTRUCTIONS	:	1. ANSWER **ALL** QUESTIONS 2. PLEASE SUBMIT **THIS QUESTION PAPER** TOGETHER WITH YOUR ANSWER BOOKLET AT THE END OF EXAMINATION.

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

Q1 (a) Define and give 3 examples of dietary sources for the following carbohydrates:

(i) Oligosaccharides
(ii) Dietary fiber
(iii) Resistant starch

(15 marks)

(b) Discuss the relationship between dietary fibre intake and blood cholesterol level in human.

(10 marks)

Q2 (a) Explain and relate the effects of the following bioactive peptides on human's health:

(i) Calmodulin
(ii) Soy protein

(10 marks)

(b) Define and explain in depth the potential health benefits of the following bioactive proteins in human physiology:

(i) Lactoperoxidase
(ii) Lactoferrin

(10 marks)

(c) List the importance of bioactive peptides analysis in food application?

(5 marks)

Q3 (a) What is the difference between prebiotic and probiotic?

(5 marks)

(b) Elaborate the potential health benefits of the following phytochemicals:

(i) Curcumin
(ii) Isothiocyanates
(iii) Capsaisin
(iv) Piperine

(20 marks)

Q4 (a) Compare the proses and manufacturing aspect between green, black and oolong tea. Highlight the major phytochemicals in each tea.

(15 marks)

(b) Peria Katak or Green Bitter Melon (*Momordica charantia*) has been used traditionally to treat diabetes mellitus. Highlight the major phytochemicals which might contribute to the effects and explain the mechanism on how each phytochemicals can act as anti-diabetic agents.

(10 marks)

- END OF QUESTION -