

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examinations 20010/11

Module Title: Clinical Nutrition

Module Code: BIOL8001

School: Biological Sciences

Programme Title: Bachelor of Science (Honours) in Herbal Science – Award

Programme Code: SHERB_8_Y4

External Examiner(s): Dr Julia Green, Prof Elizabeth Williamson

Internal Examiner(s): Ms AM Keaveney

Instructions: Answer 3 questions only. All questions have equal marks

Duration: 2 Hours

Sitting: Autumn 2011

Requirements for this examination:

Note to Candidates: Please check the Programme Title and the Module Title to ensure that you have received the correct examination paper.
If in doubt please contact an Invigilator.

Q1. Cardiovascular health

- (a) Critically discuss the effect on the heart of dietary intake of different fats and the development of coronary heart disease.
- (b) Critically evaluate the role of antioxidants as a food source, particularly fruit and vegetables, in relation to coronary heart disease.

Q2. Allergy

- (a) Critically discuss the differences between a food intolerance and a food allergy in relation to either wheat or dairy products.
- (b) In respect of the food chosen in a) above (wheat or dairy) critically discuss the options available in addressing the food intolerance and/or allergy.

Q3. Diabetes

David (45 yrs old) visited his doctor because he has felt tired for the past six months. He is 1.72m (5ft 6in) tall and weighs 98kg (216lb). He also has high blood pressure. From blood tests, David was diagnosed with type 2 diabetes. His 49-year-old brother also has this type of diabetes.

He is an engineer and spends most of the day sitting at a computer. He occasionally plays tennis, takes no medication, and has smoked a pack of 20 cigarettes every day for 25 years. For breakfast, David has a large bagel with cream cheese and orange juice. He has a doughnut and coffee mid-morning. Lunch is usually a meat or cheese sandwich with a packet of crisps and fruit juice. For dinner, he sometimes eats out with clients, or the family will get take - away Chinese or Indian food with large servings of fried rice or breads. David usually drinks two bottles of beer with his evening meal.

With reference to the above case;

- (a) Critically discuss the effect of diet on the development and progression of diabetes
- (b) Critically discuss the different approaches that can be recommended for effective diabetic control.

Q4. **Obesity**

‘Obesity is a serious healthcare issue in the 21st century with many diseases and disorders direct consequences of excessive long-term weight gain. Following a 2002 health survey the British Health Department said that 16% of UK children between the ages of 2 and 15 are obese and 32% of young adults are obese, not taking into account adult obesity.’

‘In Ireland current estimates suggest that one in five adults is obese posing a particular threat to the population given our high mortality from cardiovascular disease relative to other European countries.....The highest prevalence of overweight was found in the United States, Ireland, Greece and Portugal.’

With reference to the above statements;

- (a) Critically discuss current understanding on diet, health and obesity.
- (b) Critically discuss the current recommendations to assist in weight loss and prevention of complications of obesity.

Q5. **Cancer**

- (a) Critically discuss the current understanding of the relationship between diet and bowel cancer
- (b) Critically evaluate **two** of the following in relation to cancer (in general)
 - (i) Antioxidants and cancer
 - (ii) Essential fatty acids and cancer
 - (iii) Specific foods associated with specific cancers