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**FOOD STUDIES**

**9336/01**

Paper 1

**October/November 2015**

**3 hours**

Additional Materials: Answer Booklet/Paper

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**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

**DO NOT WRITE IN ANY BARCODES.**

Answer **four** questions, **two** from Section A and **two** from Section B.

Write your answers on the separate Answer Booklet/Paper provided.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

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This document consists of **3** printed pages and **1** blank page.

**Section A**

Answer **two** questions.

- 1 (a) Explain the terms *simple sugars*, *intrinsic sugars* and *extrinsic sugars*. [6]
- (b) Give the functions of the minerals found in wheat and describe the effect of phytic acid in the wheat. [4]
- (c) Give the functions of **three** other minerals not named in (b). [3]
- (d) State the functions of thiamin and niacin in the body. [4]
- (e) Explain the importance of NSP in the diet. [8]
- 2 Give an account of:
- (a) the digestion of fat in the duodenum and ileum; [3]
- (b) passive absorption and active transport; [6]
- (c) factors that hinder the absorption of calcium; [6]
- (d) the role of the liver and pancreas in maintaining blood sugar levels; [4]
- (e) deamination; [3]
- (f) defective absorption in cystic fibrosis. [3]
- 3 Water and micro-nutrients are important in the diet.
- (a) Discuss the effects of storage, preparation and cooking on water-soluble vitamins. [5]
- (b) Explain the functions of vitamin A in the body. [3]
- (c) Give an account of the symptoms of iron deficiency and of an excess of iron. [4]
- (d) Discuss the functions of water in the body. [6]
- (e) Describe the symptoms of dehydration. Suggest which individuals are most at risk of dehydration and explain why. [7]
- 4 Current dietary guidelines advise a reduction in the intake of saturated fat, sucrose and sodium.
- (a) Give reasons for the need to reduce saturated fat and sucrose. [8]
- (b) Give an account of the roles of high density lipoprotein (HDL) and low density lipoprotein (LDL) in the body. [6]
- (c) Explain the term *fatty acids*. [6]
- (d) State the recommended daily amounts of sodium for an adult and a baby. Explain this advice. [5]

[Total: 50 marks]

**Section B**

Answer **two** questions.

- 5 Many food products contain cereals.
- (a) Describe the process of milling wheat to produce flour. Discuss extraction rates. [8]
  - (b) Explain the role of gluten in baked products. [3]
  - (c) Describe what causes the natural ripening and then decay of a fruit or vegetable as it ripens. [6]
  - (d) Give the name of the food poisoning bacteria found in cereals. Give details of how cereal foods should be stored. [4]
  - (e) Give reasons for the popularity of breakfast cereals. [4]
- 6
- (a) Give advice on how to consume a healthy vegetarian diet. [12]
  - (b) Describe how TVP is produced. [3]
  - (c) Discuss the benefits of TVP. [5]
  - (d) Outline the labelling that you would expect to see on a packet of TVP mince. Explain why this information is useful. [5]
- 7
- (a) Discuss factors, other than nutritional, to consider when planning meals. [10]
  - (b) Explain how to determine the nutritional and energy value of meals. [3]
  - (c) Define the term *basal metabolic rate* (BMR) and discuss the factors that affect BMR and energy need. [8]
  - (d) Outline the causes and symptoms of protein–energy malnutrition. [4]
- 8
- (a) Write an informative paragraph about the production of margarine and low fat spreads. [10]
  - (b) Give details of the mixture and method for making choux pastry. [5]
  - (c) Suggest additives that may be used in a manufactured choux pastry dessert and explain the functions of these additives. [5]
  - (d) Suggest how profiteroles in chocolate sauce could be packaged to extend their shelf life. [5]

[Total: 50 marks]

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