



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

Mark scheme

June 2003

GCE

Design and Technology
Food Technology

Unit FTY1

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FOOD TECHNOLOGY UNIT 1 (FTY1)

Quality of Written Communication

The following marks are allocated to the quality of the candidate's written communication. Make a separate assessment of the candidate's overall ability as demonstrated across the paper using the criteria given below.

<i>Performance Criteria</i>	Marks
The candidate will express complex ideas extremely clearly and fluently. Sentences and paragraphs will follow on from one another smoothly and logically. Arguments will be consistently relevant and well structured.	
There will be few, if any, errors of grammar, punctuation and spelling.	4
The candidate will express moderately complex ideas clearly and reasonably fluently, through well-lined sentences and paragraphs. Arguments will be generally relevant and well structured. There may be occasional errors of grammar, punctuation and spelling.	3
The candidate will express straightforward ideas clearly, if not always fluently. Sentences and paragraphs may not always be well connected. Arguments may sometimes stray from the point or be weakly presented. There may be some errors of grammar, punctuation and spelling, but not such as to suggest a weakness in these areas.	2
The candidate will express simple ideas clearly, but may be imprecise and awkward in dealing with complex or subtle concepts. Arguments may be of doubtful relevance or obscurely presented. Errors in grammar, punctuation and spelling may be noticeable and intrusive, suggesting weaknesses in these areas.	1

Question 1

- (a) The importance of protein in the diet may include growth, repair and maintenance. Energy provider. Variety of protein foods available, varied diet. Complementary action of amino acids. Function of proteins e.g. coagulation, ability to form the structures of many food products. Credit will be given for justified examples.
- (b) Criterion banding will apply
Reference to be made to all 5 cheeses and all 5 nutrients to achieve full marks. The correct use of data and units of measurement will be credited.
- (c) Different types – hard cheese, processed cheese, cottage cheese.
Readily available, concentrated source of protein, fat soluble vitamins, little waste, versatile, hot, cold, cooked, raw, savoury, sweet.
Low fat content available. Examples of different types.
- (d) Fat melts, protein coagulates, overheating causes protein to toughen, becomes stringy, difficult to digest, eventually burn. Syneresis may be mentioned, changes in aroma.
- (e) Credit should be given for original and innovative ideas. Specific cheeses will be mentioned and sensory characteristics.

Question 2

- (a) Three different types of milk must be identified (1 mark for each) and reference made to the content of: water, protein, fat, sugar, fibre, calcium, iron.
- (b) For each type of milk described above the effects of processing on the sensory and physical characteristics should be discussed. Reference to nutritional content, consistency, flavour, aroma and keeping qualities may be mentioned.
- (c) Reference should be made to the effects that various types of milk would have on either the production of a cheese sauce or custard. Credit will be given for either, not both. Colour, flavour, texture, nutritional value. Experiment may be described with fair testing and sensory evaluations. Sensory evaluation should be carried out. Reference may be made to the keeping qualities and nutritional value of milk.

Question 3

- (a) Any well justified response with regard to the colour, flavour and shape of pasta will be credited.
- (b) Pasta is popular, versatile and cheap. Healthy eating trends have led to an increase in pasta consumption. Ideal for vegetarian, weight reduction and low fat diets. Popular amongst different groups of people.
- (c) Some vitamins and minerals lost or reduced during storage, preparation and production. Processing can destroy or alter nutritional value, colour, texture and appearance of products. People lead busy lifestyles, fast foods, ready made meals, snacking, changes in family eating habits, methods of cooking.

Question 4

- (a) Flour – structure, texture
Lard/white cooking fat – shortening properties
Butter/margarine – colour, flavour
- Proportion $\frac{1}{2}$ fat to flour.
Too much fat = oily and sticky.
Too much lard/ white cooking fat = a very pale colour, with a crumbly texture.
Too much butter or margarine = a very golden colour but a heavy texture.
Too much flour a very heavy, dry texture.
- (b) To save production time due to the use of fewer manufacturing processes.
To reduce the amount of equipment it would be necessary to purchase.
To reduce production costs, eg less energy, fewer skilled staff.
To save time involved in sourcing, purchasing and preparing raw ingredients.
To ensure a consistent result in terms of size, weight, shape, flavour and proportion.
To make stock control easier.
To extend the range of products.
Credit will be given to positive aspects only.
- (c) Credit should be given for original and innovative ideas, but it should be remembered that the question only refers to nutritional value, flavour and texture.
- Answer could include changes and additions to basic ingredients.