FOOD SCIENCE

Paper 0635/01

Theory Paper

General comments

There was an improvement in the standard of work in this year's examination. Many candidates answered questions very well, indicating a sound understanding of topics; a few seemed to lack basic knowledge.

Candidates should be reminded that the mark allocation for each part of a question and the space provided for answers are an indication of the detail required in the answer and the amount of time to be spent on each section. This information should be used for guidance. It is important that questions are read carefully and that key words are noted otherwise answers may not be relevant. Answers to ***Section B*** questions were often brief and showed little evidence of planning. There were few rubric errors.

Comments on specific questions

Section A

Question 1

(a) Many candidates were able to gain full marks for naming two cheeses and the country of origin. Some answers were too vague; blue cheese was not acceptable, nor were brand names.

(b) It was expected that rules to follow when using cheese would include the advice to grate cheese finely, to avoid overcooking and to use with starchy ingredients.

(c)(i)(ii) There were many good answers to this part of the question. Some suggested that those suffering from coronary heart disease should reduce their consumption of cheese because cholesterol is found in animal fat. Others noted that overweight people should eat less cheese because it is high in fat and advice to them would be to reduce the amount of fatty foods in their diet.

(d) It was disappointing to note that few candidates were able to identify enzymes involved in the breakdown of cheese. Consequently, they were unable to state where digestion of cheese took place and could not name the end products. Only one candidate gained full marks. Pepsin, trypsin, erepsin and lipase should have been named, together with the part of the digestive system in which they are found and the names of the substances produced.

Question 2

(a) Many candidates were able to score full marks for listing three different uses of water in the body. Answers usually referred to the maintenance of body temperature, lubrication of joints, digestion, the production of body fluids, or named examples of body fluids, and metabolic reactions.

(b) It was surprising that few correct definitions of 'water balance' were given. It was expected that candidates would state that it means that the amount of water taken into the body each day should be equal to the amount of water lost.

(c) Full marks were often gained in this part of the question. Credit was given for mentioning that a person may be deficient in water after exercising, in high temperatures and when suffering from a fever, diarrhoea or vomiting. A few correctly noted that women may suffer from a lack of water during lactation.

(d) Most candidates knew that a lack of water is known as dehydration.

Question 3

(a) It was not generally known that proteins are involved in the formation of enzymes and hormones.

(b) Vitamin D was correctly identified as the nutrient which aids iron absorption.

(c) Vitamin A was known to be involved in the production of visual purple.

(d) The majority of candidates correctly stated that vitamin C helps to prevent scurvy.

Question 4

(a) The range of correct answers relating to the usefulness of preserved foods was wide. Variety was often mentioned, as were the prevention of waste, the availability of foods out of season and the opportunity to enjoy foods from other countries. Credit was given to those who noted that preserved foods will keep for a long time so will save shopping time. All valid points were credited.

(b) This part of the question seemed to cause problems for some candidates, suggesting that they were unfamiliar with the principles underlying the different methods of preservation.

(i) Good examples of the use of high temperatures for preservation were jam-making, bottling and canning, and the production of UHT milk.

(ii) Most candidates correctly named freezing as a method of preservation using very low temperatures. Refrigeration was not accepted since it does not preserve food; it is a method of keeping food fresh.

(iii) Pickling was usually mentioned as a use of acid.

(iv) Those who gave correct answers for the use of a chemical mentioned methods such as salting, smoking and the use of sulphur dioxide to preserve, for example, sausages.

(c) Candidates suggested many advantages of importing food from other countries. Some noted that it gave variety to the diet and increased the choice of food available; others mentioned that it allowed the produce of other countries to be enjoyed. Many correctly stated that imported food is vital in times of famine.

Section B

Question 5

This was the most popular question in ***Section B*** and was generally well answered.

(a)(i) It was well known that fats and oils are made up of carbon, hydrogen and oxygen.

(ii) Animal fats usually included butter, lard, suet, dripping and fish liver oils. Margarine was not accepted since it is often made from vegetable oils.

(b)(i) Candidates seemed to be unsure of the structural difference between saturated and unsaturated fat. It was expected that reference would be made to the fact that saturated fat has only single bonds in its molecule; it holds the maximum number of hydrogen atoms. Unsaturated fat, on the other hand, has more than one double bond in its molecule and is able to hold more hydrogen.

(ii) Many candidates correctly gave sunflower oil as an example of unsaturated fat but most were unable to give a second example. Corn oil, soya bean oil and fish oils could have been given.

(iii) Many candidates appeared to have either misread or misunderstood the question. Reasons for the reduction of a person's saturated fat intake were expected. Many candidates gave reasons for a reduction in fat. It was expected that answers would state that saturated fats are usually from animal sources and that they contain cholesterol which can be deposited in arteries. This can cause arteries to be blocked. Many candidates correctly linked saturated fats to coronary heart disease but gave little further information.

(iv) Again, some candidates ignored the fact that answers must relate only to saturated fat so they suggested ways of reducing the amount of fat in the diet. It was expected that candidates would recommend replacing butter with polyunsaturated fat or spreading butter more thinly on bread. Some correctly advised that the intake of red meat should be reduced or that visible fat should be trimmed from meat. Many candidates suggested that skimmed milk, low fat spread and reduced fat cheese, cream and yoghurt should be use instead of full fat alternatives.

(c)(i) Most candidates scored full marks for giving reasons for the popularity of frying as a method of cooking. Some stated that it is a quick method and that fried food has a high satiety value; others referred to the colour, flavour and texture of fried food.

(ii) Many candidates could give reasons for coating food before frying but few were able to offer any explanations as required from the question.

(iii) It was well known in **(a)** and **(b)** that if the temperature of the fat for deep frying was too high the outside would burn before the inside was thoroughly cooked. If the temperature was not high enough fat would be absorbed by the food.

(d) Safety rules to follow when deep frying were generally good, although few candidates explained the rules they gave. It was often stated, for example, that fat should not be overheated but it was seldom noted that the reason was to prevent the fat from igniting. Credit was given to those who stated that food should be dry and should be put into the fat gently; marks were gained for warning that the pan should not be more than half full and that fat should not be left unattended. Maximum marks could only be scored when explanations were given.

Question 6

Although this question was the least popular, those who chose to answer it scored well.

(a)(i) Air, steam and carbon dioxide were known to be the gases used as raising agents.

(ii) Most candidates correctly stated that raising agents give a light texture to mixtures but none of the candidates was able to explain that raising agents give a characteristic structure to baked products such as flaky pastry and Swiss roll.

(b) The answers to this part of the question were very good. Full marks were scored for naming the gas used to raise the baked product and for describing its production.

(i) It was well known that the raising agent in Swiss roll is air and that it is introduced to the mixture when eggs and sugar are whisked together.

(ii) Carbon dioxide was correctly named by the majority of candidates as the raising agent in a loaf of bread. Some candidates were not able to describe how carbon dioxide, together with alcohol, is produced during the fermentation of yeast.

(iii) This was the least well answered part of the question. It was expected that candidates would be able to named carbon dioxide as the raising agent and explain that it is evolved by the action of moist heat on bicarbonate of soda.

(iv) Both air and steam were accepted as raising agents in flaky pastry. Some candidates correctly explained that air was trapped between the layers of pastry during rolling and folding; others noted that the high water content in the pastry would be converted to steam when the pastry was baked in a hot oven.

(v) Air and carbon dioxide were named as the raising agents in a Victoria sandwich cake. Credit was given for mentioning either of them. Those who gave air as the raising agent usually described how it was trapped during creaming and sieving. Those who named carbon dioxide, however, were often unable to describe how it was produced in the mixture. Credit was given to those who stated that it was produced by the action of moist heat on the chemicals in self-raising flour or on baking powder if plain flour was used.

(c) Instruction for the storage and use of baking powder were often vague. It was generally suggested that baking powder should be kept in a dry place but few could explain that moisture would cause a reaction with the baking powder. Most candidates advised that storage should be in an air-tight tin. Very few candidates made an attempt to offer instructions for the use of baking powder. It was expected that candidates would state that the correct proportions must be used according to the recipe to ensure a successful result. Too much raising agent results in the over-rising followed by the collapse of the structure. Too little raising agent, on the other hand, will give too close a texture to the product. No-one mentioned that baking should take place as soon as possible after mixing otherwise some of the gas will have escaped before baking begins. This results in a reduction of volume.

Question 7

(a) Candidates usually gained full marks for stating two reasons for preserving food. Answers included the prevention of waste, to keeps foods longer, to slow down the multiplication of micro-organisms, to prevent food poisoning and to enjoy foods out of season. There were many other valid answers.

(b)(i) Many candidates were able to identify the cause of fermentation in food as the result of the action of yeast on sugar, producing carbon dioxide and alcohol.

(ii) The causes of rancidity were not known by most candidates. Credit was given to those who stated that the enzyme lipase causes glycerol to split from fatty acid. Full marks were available to those who noted that when fat is oxidised, oxygen is absorbed by the fat molecule, making the fat rancid.

(iii) It was disappointing to note that only a few candidates were able to describe the shrivelling of food as the result of the evaporation of the water.

(iv) Full marks were scored for stating that lactose in milk is converted to lactic acid by bacteria. The acid causes milk to curdle and become sour.

(c)(i) Most candidates found it difficult to name bacteria which cause food poisoning. Salmonella was usually given as an example and sometimes bacillus cereus but few other names were known. It was hoped that Listeria, E.Coli and clostridium botulinum would have been named by a few candidates.

(ii) The most commonly named foods at risk from bacterial contamination were poultry and eggs. It was surprising that mention was rarely made of milk, sauces and soups, sausages and meat pies. Full marks could only be gained by those who explained why named foods were at risk, for example, milk is a warm, dilute food which provides ideal conditions for the multiplication of bacteria unless they are destroyed by the heat treatment of milk.

(iii) The conditions required for the multiplication were well known. Most listed warmth, food and moisture; those who mention that time, oxygen and a suitable pH were important were given equal credit.

(iv) As expected in **(a)** and **(b)**, most candidates gained full marks for stating that bacteria are destroyed by very high temperatures and are inactive at very low temperatures. No marks were given to those who noted that bacteria multiply slowly at very low temperature. The important word in the question was ‘very’. Bacteria would be inactive.

(v) Although candidates were able to give rules which should be followed in order to reduce the risk of food poisoning, many of the rules related to personal hygiene or to food storage. It was expected that only kitchen hygiene rules would be given, for instance the need to keep surfaces and equipment clean, to ensure that pets are kept out of the kitchen and the importance of keeping the dustbin away from the kitchen. A reason for each rule stated was expected. Most candidates did not give explanations of the rules they gave,

Question 8

This was one of the least popular questions and was not well answered by those who chose it.

(a) Most candidates were able to state that the list of ingredients was in descending order although few mentioned that it was in order of weight. The list includes additives so some people may wish to avoid particular ingredients for health reasons.

(b)(i) Some candidates were not aware that the function of modified starch is to thicken.

(ii) Full marks were gained by those who noted that vegetable bouillon is vegetable stock used for flavouring.

(iii) Parsley, thyme, sage and rosemary were some of the herbs which could have been added to the tomato soup. Some candidates lost marks because they listed spices.

(c) There were many possible answers to this question on the information found on a label. The name must be stated, the name and address of the manufacturer, the country of origin, storing, cooking and serving instructions and the weight, to mention only a few. Candidates were asked to give a reason for the information. Nutritional information was not accepted since it is not essential that such information is shown on a label. The question asked for information which must be shown on a label.

(d) Most candidates could name at least one group of people who would find nutritional information useful. Some mentioned that vegans would wish to know whether any animal products had been included, those following a calorie controlled diet would wish to know the energy value of the food and those who were suffering from coronary heart disease would need to know the amount of saturated fat in the product. Other groups of people were correctly identified and valid reasons given for their need to check nutritional information.

(e)(i) The majority of candidates were able to define the term 'vegan', stating that a vegan would eat neither animal flesh nor animal products.

(ii) Most discussions on the problems associated with a vegan diet centred on the possibility that a vegan could be deficient in HBV protein and that this could be provided by including soya and soya products in the diet or by eating a combination of LBV protein foods in the same meal. Some answers correctly noted that calcium could be lacking and that this could be obtained from green vegetables and that it was possible that iron may be in short supply. Foods to overcome this were suggested. Other problems which could have been highlighted were possible shortages of vitamins A, D and B12, the fact that vegan diets are sometimes bulky and monotonous. If ways of overcoming perceived problems were outlined, full marks were awarded.

Section C

Question 9

This was a popular question and was answered well by the majority of those who chose it. It was expected that candidates would name the nutrients in milk and give a function of each nutrient in order to highlight its importance. Although protein was always mentioned, few answers drew attention to the fact that the protein was of High Biological Value. The storage of milk was usually dealt with in a too superficial way. Better candidates advised that milk should be kept in a cool place and that it should not be mixed with older milk or placed near foods with strong odours. Candidates generally gave very good accounts of methods of processing milk in order to extend its shelf life. Methods discussed included pasteurising, homogenising, Ultra Heat Treating, sterilising, drying, condensing and evaporating. The highest marks were scored by those who gave precise information on temperatures and times involved in each of the processes.

Question 10

This question was the most popular and there were many creditable answers. Candidates were expected to name protein, calcium, fluorine and iron as the nutrients of particular importance to young children. It was expected that functions and examples of them would be mentioned. The range of points which gained marks was wide. Variety of colour, flavour and texture were important, many mentioned that children should not be allowed sweets between meals and should be encouraged to eat at least five servings of fresh fruit and vegetables and the advice to serve meals regularly and in small portions was often given. Low levels of fat, sugar and salt were recommended.

Question 11

Although this question was not a popular choice, the highest marks for a ***Section C*** question were scored by those who attempted this question. Candidates were expected to name the main minerals required by the body. These included calcium, phosphorus, iron ,sodium, chlorine, fluorine and iodine. Functions of these minerals together with foods in which they could be found should have been included in answers. Better answers indicated the result of a deficiency of particular minerals. One or two candidates seemed to confuse minerals with nutrients and limited the marks they gained because they wrote at length about many nutrients, including one or two minerals. Unfortunately only the information on minerals could be credited.

Paper 0635/02

Coursework

General comments

The Coursework differentiated well between candidates. Many of them were of a very high standard and demonstrated excellent application of knowledge. In one of two cases, Teachers commented that candidates did not respond well to advice. It is important that candidates are made aware of the guidance given in the Distance Learning Manual. The Teacher's role in the supervision of studies is outlined and advice is given on the format and presentation of Coursework.

It was apparent that many candidates had spent a great deal of time and effort on producing their work. Although this is very commendable, they should be reminded that the study should not normally be in excess of eight sides of paper exclusive of any associated diagrams.

Comments on specific parts

Introduction

Most introductions were good; candidates clearly indicated the area of the syllabus from which their study was chosen and identified their topic. There was usually a satisfactory reason for their interest in the topic. Some studies could have been improved by the inclusion of a brief discussion of different ways in which their investigation could be conducted. This would precede the plan of action.

Investigation

All candidates gave good accounts of what had been carried out.

Summary of the findings/conclusions

This area was not generally well approached. Although many candidates included a large amount of detail, sources were not often acknowledged and little attempt was made to summarise and analyse the information.

Evaluation

Parts of the study which should not be included in these eight pages include:

- copies of letters, interview questions and surveys;
- data collected and presented as lists, tables, graphs, pie charts, drawings, photographs' observations in experiments and comparisons;
- acknowledgements and bibliography.

There is no need to stick rigidly to a particular number of pages; the number is given for guidance, so a few extra sheets are acceptable.

Most of the areas for study were appropriate; they focused on part of the syllabus and were suitable for the level of examination. Some candidates were a little ambitious and chose topics for which few resources were available. In these cases, the studies were very general and gave subjective views rather than conclusions formulated from evidence. Occasionally the title did not reflect the content of the study. The title should be a clear indication of the scope of the study. It would be better to entitle a study "The relationship between diet and fitness amongst a group of sportsmen in .....School" than to choose a title such as, "The relationship between diet and fitness amongst adolescents". Conclusions cannot be drawn from small studies.

Candidates who chose to use questionnaires often included questions which were not well thought out resulting in a lack of relevant information. It is important that candidates are reminded of the need to pilot their questionnaires and to include some open-ended questions in order to collect thoughts and opinions from respondents. The inclusion of anecdotal evidence makes studies more unique and more interesting to read.

The presentation of information in a variety of ways is interesting but it should be relevant to the study. it is a waste of time to draw a bar chart or a pie chart to indicate a YES/NO answer; A sentence will convey the same information very clearly. Many candidates demonstrated a high degree of skill at producing computer graphics but in some cases failed to give a title to their work. Complex graphical information is often difficult to interpret unless it is accompanied by text. It was much clearer when graphics were interspersed with prose because it eliminated the need to turn pages backward and forwards in order to achieve an understanding of the results. Candidates should be reminded that using a computer does not automatically gain credit; several commendable studies were hand-written.

Some candidates presented conclusions for which there was no evidence in their study. Data must be included to validate any conclusions drawn and to allow the assessor to follow the thread which should, by definition, run through the study.

When assessing the nutritional value of an individual's diet, there was seldom any evidence of the quantity of food eaten. This invalidated the conclusions drawn since they were based on guesswork. When individuals are asked to keep food diaries they must be asked to measure the exact amount of food consumed and to give as much information about the individual foods as possible. It is important, for example to know whether meat is chicken or beef and whether milk is whole or skimmed. The methods of cooking used are also important; frying and boiling will produce different results. When precise information is collected nutritional contents can be calculated from food tables and compared with RDIs.

Conclusions were well expressed, although some tended to be repetitive. Concise information is equally valid; repetition in order to reinforce information is unnecessary.

Evaluations could have been improved in many cases. Candidates were usually very good at indicating how they themselves had benefited from undertaking the study. Points made in the training manual on evaluation should be emphasised to candidates. Comments should be made in the evaluation section on:

- the quality of the piece of work (relevance, accuracy, clarity etc.);
- aspects which have been successful or unsuccessful;
- problems which arose and how they were solved;
- usefulness of the findings;
- ways in which the study could have been changed, improved or developed.

Studies were well presented and candidates are to be congratulated on their achievements.

Teachers are reminded that they should annotate each individual record sheet in order to justify the mark awarded in each section.

Paper 0635/03

Alternative to Coursework

General comments

The overall standard of work was satisfactory. Many candidates produced competent answers to all questions and demonstrated a sound understanding of the foundations of the subject. The most successful candidates, however, were those who explained their answers and gave examples where appropriate. Candidates should be reminded that mark allocations and the space provided for answers are intended to indicate the amount of detail required.

Comments on specific questions

Question 1

(a)(i) This part of the question was answered well by most candidates. They used the data given to calculate the fluid intake of each of four candidates in one day.

(ii)(a) The bar charts produced were generally of a good standard. It was expected that the bar chart would have a title, each axis would be labelled and that the total fluid intake for each candidate would be shown. A common omission was an indication of an individual's average fluid intake. Those who included that information usually drew a line across the chart at the appropriate level. Many candidates produced very neat charts, using different colours to differentiate between candidates. It should be noted, however, that some candidates were much too careless with the construction of their bar chart. They paid little attention to the marking of measurements on the vertical axis.

(b) Many candidates gained full marks for their comments on the quality and usefulness of their presentation. They mentioned that the information was easy to interpret and that it was possible to see which candidates' intakes were above or below the recommended amount. Some noted that the use of colour improved the presentation of data; others commented that the information given in the table was more easy to understand when presented as a bar chart.

(iii) In **(a)** candidates gave very good accounts of the uses of water in the body and many gained full marks. Some candidates in **(b)** were unable to account for individual differences in the amount of fluid required each day. A common error was to give reasons for different individual energy needs. It was expected that candidates would mention that fluid requirement would be affected by level of activity, climate, state of health, body size and whether a female was pregnant or lactating. The question required each point to be explained so a list of factors without additional information could not score full marks. In **(c)** it was well known that a deficiency in fluid intake results in dehydration and may also cause headaches, dizziness, tiredness and digestive disorders such as constipation.

(b) The question asked for an evaluation of the nutritional contribution of the drinks to the diet of each candidate. Many candidates, however, gave general information on the drinks consumed so no clear picture was given for each candidate. It was hoped that comments would be made on each beverage consumed, with reference to the level of sugar, the presence of artificial colours, flavours and sweeteners, the nutritional value of milk and fresh orange juice and perhaps the energy value of particular drinks. All valid information was credited.

Question 2

(a)(i) Most candidates were unable to suggest more than one characteristic of a target group. It was hoped that gender, age, occupation, health and socio-economic factors would have been identified.

(ii) It was hoped that reasons for choice of target group would include availability of respondents as in a class. Some candidates suggested that they may wish to investigate a group which has been mentioned in a report or a newspaper such as elderly people. A few candidates gave excellent reasons for their choice of target group suggesting a sound understanding of the situation.

(b)(i) Most candidates gave several sound reasons why Example A would be a more valuable questionnaire that Example B. They noted that Yes/No responses give little information and allow respondents to be dishonest. They do not indicate what the sample of people knows or understands. Example A, however, was recognised as a way of finding out the extent of an individual's knowledge and understanding. Responses can be collated and analysed and conclusions can be drawn. Better candidates illustrated their answers by giving examples of questions.

(ii) The majority of candidates suggested that Example B could be improved by avoiding Yes/No responses and by formulating questions which would test the extent of an individual's knowledge. Some candidates noted that open-ended questions could be included.

(c) It was clear from the responses to this part of the question that many candidates had not read the question properly. The questionnaire had to be based on testing knowledge of the best sources of NSP in local foods. Many answers related to foods in general. A simple chart listing local foods and an accompanying grid to tick whether the food has a high, moderate or low fibre content would have been sufficient to gain full marks.

(d) Several candidates gave very good accounts of evaluating an individual's daily food intake to find out if the NSP content would be adequate. It is important to remember that listing the foods consumed is not enough; the exact quantity of each food must be given so that the NSP content can be calculated from food tables. Credit was given for mentioning that the individual's RDI for NSP must be known so that a comparison with the daily intake can be made.

(e) It was well known that NSP is a polysaccharide which cannot be broken down into simpler structures by digestive enzymes. Cellulose was usually given as one of the examples; others included pectin and lignin.

Question 3

(a) Responses to this part of the question were disappointing. Few candidates scored more than one or two marks. It was expected that methods of producing carbon dioxide would have included the use of self-raising flour, plain flour and baking powder, plain flour, bicarbonate of soda and tartaric acid on their list. Many answers included yeast as a possible method of producing carbon dioxide but this is never used in scone making so did not gain credit.

(b) There were many excellent lists of actions to ensure a fair comparison when using different raising agents. The importance of having the same person to weigh and measure and the same person to mix and prepare the scones was well understood. The majority of candidates were aware of the importance of using the same oven temperature, shelf position and cooking time.

(c)(i) Few candidates were able to state that the reasons for choosing to make plain scones were that it would be easier to judge colour and flavour if no other additional ingredients had been used.

(ii)(a) The ingredients for plain scones were well known; most candidates were able to gain full marks. It was expected that the type of flour, the raising agent, a named fat and a named liquid would be identified.

(b) The method for making and baking the scones was well described by the majority of candidates. It was expected that explanations for each step would be included since the question clearly asked for reasons for the method. The importance of reading questions carefully cannot be over-emphasised.

(d)(i) Candidates correctly noted that when evaluating the finished scones, the appearance, the amount of rising, as well as the colour, the texture and the flavour would be important characteristics. However, accounts of how an evaluation might be carried out were disappointing. It was expected that descriptions would include the fact that tasters would be in separate booths so that they could not contact each other, they would be given the same amount of each scone and should have water to drink between each taste test. Some candidates noted that each scone would be identified by a letter or a number and that a chart should be provided with instructions for its completion.

(e) Full marks were available for those who included on their chart the characteristics being evaluated, a means of identifying each sample and an indication of how each characteristic would be scored. Although the question asked for the preparation of a chart, a number of charts included imaginary results. Candidates should avoid including any information not requested.

Paper 0635/04

Practical Test

General comments

All candidates attempted all sections of the examination paper but a number of them did not use their time wisely. If too much time is spent choosing dishes, insufficient time remains for the preparation of a time plan. If this is not adequately done and is lacking in detail it will not be very useful during the practical session. Several candidates mentioned that they had prepared dishes which they had never made before; this is unwise since they could be unfamiliar with the amount of time to allow for each process and would possibly be unsure of the outcome of the finished dish. The general instructions advise the choice of familiar dishes so that candidates can be more confident when working under examination conditions. The evaluation section was attempted well by the majority of candidates. Thirty minutes are allowed for this section so it is not anticipated that several sides of paper will be required in order to give adequate answers. Some Centres did not submit the candidates' work on the carbonised sheets designed for the practical examination. Photocopies of candidates' work replaced the originals: this should not happen. In one or two cases, photocopying was on both sides of the paper making marking difficult. Centres must ensure that white copies of all carbonised sheets are sent for marking; its is most important that original versions of candidates' work are available in the UK. It is most helpful if all of the sheets from individual candidates are fastened together but care must be taken to assemble pages in the course order. Errors were found on many occasions. Candidates should have at hand all of their written sheets during the evaluation session so they should be responsible for collating their own work. A paper fastener should be used so that sheets do not become separated; staples are to be discouraged.

It was disappointing to find that marking instructions were not always followed carefully in some Centres. It is clearly stated that the planning section and the evaluation section are to be marked externally. In some Centres they were marked although no mark scheme was issued for the purpose.

Photocopies of mark sheets for recording the work of individual candidates were often used. This is not recommended because the lightly shaded sections become very dark when photocopied and are impossible to use for the recording of marks and comments. Centres are urged to use the official stationary.

Page 3 of the Mark Scheme states clearly that where a candidate is preparing very simple dishes, the maximum mark for results must be reduced.

This instruction is ignored by most Centres with the result that candidates are awarded very high marks for dishes which involve little skill. In several Centres the maximum mark of 30 was used for every candidate regardless of the dishes chosen.

Sometimes, if three dishes were chosen, each dish was marked out of a maximum of 10 marks even though one dish was clearly more involved than other; there are no circumstances in which a quiche could be awarded the same maximum mark as a simple salad. Marks for each of the dishes planned must be apportioned before the beginning of the practical test; it is a matter of concern that some Examiners are allocating marks to dishes which were not planned and are reallocating marks for dishes which were not produced for whatever reason. A dish which is planned but not presented must be awarded zero. Examiners are reminded that the space provided at the side of each named dish must be used to fully justify the mark awarded. It is unsatisfactory to use single words such as 'tasty' or 'fine'; the instructions clearly state that the Examiner must refer to colour, flavour and texture or whatever qualities are appropriate to justify the marks awarded. The marks should also reflect the descriptions given; if a dish is overcooked or poorly shaped it cannot be awarded an almost perfect mark. Similarly, if a dish is undercooked it may not be worthy of a mark since it is probably inedible.

Although photographs are not essential, they provide valuable information for completing the mark sheets.

Method marks are seldom justified. Examiners must familiarise themselves with the mark scheme and follow instructions for completing the mark sheets. Again, single words or short phrases were often used to describe a candidate's work. It is not helpful to state that a candidate could not be faulted or was satisfactory. Suggested method marks for good, average and poor candidates are given for guidance. It is a matter of concern that some Examiners are ignoring these guidelines and are awarding maximum marks to every candidates in their Centre. This is especially worrying when candidates comment in their evaluation sections that some of their work was disappointing.

Candidates should be reminded that they must plan sufficient work to occupy all of the time available and that all of the washing up must be completed. They must demonstrate their skill in as many ways as possible; simple dishes cannot score as highly as more skilful dishes.

Time plans must include a detailed order or work with an indication of the methods used, the cooking times and the cooking temperatures. It is not expected that methods are written out in detail; recipes can be referred to during the examination. Sequencing within the order of work is essential.

A number of candidates wrote out entire recipes, one after the other, when in fact this would not be the sequence of events during the practical test. Candidates should begin their time plan at the time their practical examination is due to begin and finish two hours later. A few plans were composed of intervals of 5 or 10 minutes with no reference to time by the clock. Firstly, it is not possible to know easily when 2 hours' worth of minutes have been used, and secondly, candidates have no means of judging whether they are keeping to time. No preparation time must be allowed.

Candidates should be reminded to read the questions in the evaluation section carefully so that their responses are relevant. They should make comments on their work during the examination, whether positive or negative.

Comments on specific questions

Question 1

This was the most popular question and many candidates interpreted it well. The topic was vegetarian diets so it was expected that candidates would choose to prepare a selection of dishes which included ingredients appropriate for those who consume neither meat nor fish or their products. Milk, cheese and eggs could have been included as could soya, pulses and nuts. The most successful candidates incorporated a variety of HBV protein ingredients or used a mixture of HBV and LBV proteins or a mixture of LBV proteins. It was important that candidates remembered that a range of skills had to be included. Unfortunately, several candidates confined their skills to the preparation of vegetables or to simple casserole cookery. Different types of vegetarian diet were well known and good accounts were given of the reasons for choosing to follow a vegetarian diet. The evaluation section was well attempted; many candidates scoring full marks.

Question 2

Although candidates usually produced a selection of sweet and savoury dishes to show the use of different raising agents, it was often disappointing to note that the variety of raising agents used was not very wide. It was expected that candidates would use self-raising flour, plain flour and baking powder, yeast and some method of incorporating air. Most candidates were able to incorporate a variety of skills. Methods of incorporating air into mixtures were well known and appropriate examples were given. It was disappointing to note that few candidates explained that gases expand on heating and that the gas pushes up the mixture. Heat will then cause protein in the mixture to coagulate, forming the structure of the product. It was well known that, apart from air, carbon dioxide and steam (water vapour) can be used to make mixtures rise. Again, candidates evaluated their practical work well.

Question 3

Although this question was popular, candidates tended not to use a variety of ingredients which included calcium in their chosen dishes. The majority of dishes selected included milk and cheese. It was a common error to name butter and eggs and sources of calcium. Few dishes included bread or green vegetables. It was hoped that each dish chosen would have a different source of calcium although this was not specifically requested in the question. The importance of calcium in the diet was discussed well by most candidates. Its need for the growth and maintenance of bones and teeth was generally noted and many mention its importance for the functioning of nerves and muscles and for blood clotting. Children, the elderly, and pregnant or lactating mothers could be deficient in calcium; most candidates were able to correctly identify at least one of these groups. Evaluations were competent.