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FOREWORD

This booklet contains reports written by Examiners on the work of candidates in certain papers. **Its contents are primarily for the information of the subject teachers concerned.**

FOOD STUDIES

GCE Advanced Level

Paper 9336/01

Theory

General comments

The overall standard of work in this year's examination was satisfactory. Some candidates produced outstanding answers, demonstrating a good understanding of the subject together with an ability to apply their knowledge to specific situations. In many instances, however, answers lacked detail. Some candidates did not appear to have read questions carefully so much of the information given was irrelevant; others wrote at length in answer to parts of questions worth few marks so time was wasted. It is important that candidates are reminded that mark allocations are a guide to the proportion of time to spend on each part of a question and to the amount of detail required in the answer. Some candidates began each question on a new page; this is not necessary. It is enough to rule a line between questions. Occasionally there was no indication on the front of the answer booklet of the questions attempted. This information is very helpful to Examiners. It is not possible to give guidance on the expected length of each answer, but answers in excess of eight sides of writing are not appropriate. If a candidate gives that amount of information, it must be assumed that some of it is not essential. Sometimes it seemed that everything known on a topic was included in an answer and the Examiner was forced to select the relevant facts. At Advanced Level, candidates are expected to be more selective.

Comments on specific questions

Section A

Question 1

- (a) Candidates who chose to answer this question gave good accounts of the absorption of iron and calcium. They noted that vitamin C aids the absorption of iron and that vitamin D assists in the absorption of calcium. It was expected that candidates would mention that iron is more readily absorbed in the ferrous form rather than in the ferric form and that phytic acid and tannin reduce absorption. Most candidates stated that phytic acid and oxalic acid reduce the absorption of calcium. The uses of iron and calcium were well known. Anaemia was known to be the result of a deficiency of iron and symptoms were usually listed. Most candidates were able to name rickets as a deficiency disease associated with calcium but osteomalacia was rarely named. Osteoporosis was occasionally mentioned but was not usually linked to a deficiency in oestrogen and was rarely noted to be most common in post-menopausal women. This information was expected. Candidates were usually able to name several groups who might suffer from a deficiency of iron and calcium. The most usual answers were children, young girls and menstruating women, old people, pregnant and lactating women, teenagers because of rapid bone growth, those who had suffered from bone fractures and members of some religious groups who cover their bodies, inhibiting the formation of vitamin D by the action of ultra-violet light on the skin. It was expected that candidates would qualify their answers to demonstrate their understanding of the reasons for each group's possible deficiency.
- (b) Locally available sources of iron and calcium were well known. Red meat and offal were listed as sources of iron as were eggs, named dried fruit and green vegetables. Sources of calcium usually included milk, cheese and yoghurt, sardines and white flour. Many candidates correctly noted that breakfast cereals are fortified with iron and calcium.

Question 2

- (a) Those who chose to answer this question had the opportunity to demonstrate their knowledge on current dietary advice. Good answers included reasons for the advice; some noted the general poor health of some people in developed nations, others mentioned the amount of national wealth spent on medical care and the loss of income when ill. As expected, most candidates gave information on the problems associated with diets high in fat, sugar and salt. They went on to give reasons for including adequate fresh fruit and vegetables. The questions could only be fully addressed if advice was given on ways to carry out dietary recommendations. High marks were scored when answers were rich in detail since a large proportion of the available marks were allocated to this part of the question.
- (b) Many candidates found this part of the question difficult. It was hoped that it would be known that convenience foods often have high levels of fat, sugar and salt. Obviously, this means that they may not reflect dietary recommendations. Some candidates made the point that many people have little nutritional knowledge and may lack culinary skills. They could find difficulty in following dietary advice. A few candidates noted that convenience foods are often used by those with limited time; they are enjoyed by family members and reflect a lifestyle of fast food consumption. The use of convenience foods is popular so it would be difficult to change people's eating habits in order to bring them in line with dietary recommendations.

Question 3

- (a) Few candidates were able to show what they understood by Recommended Daily Intakes. Full marks would have been gained by those who were able to state that they are average amounts of nutrients which are used for guidance. They represent an estimate of the requirement of each nutrient for healthy living but individual needs vary.
- (b) Candidates were required to compare the nutritional needs of a teenage girl and a moderately active elderly woman. Many answers consisted of separate accounts of the requirements of each group; no comparisons were made. It was important that words such as 'more', 'similar' and 'less' were used in order to address the question. Reasons for each difference or similarity were expected since the question asked for explanations. It was hoped that nutrients particularly required by women would be considered but good answers could only be achieved by those who discussed a range of nutrients.
- (c) There were many competent accounts of the factors influencing an individual's choice of food. The principle reason for low scores in this part of the question was that candidates did not discuss a range of factors as requested. The possible range of factors was wide and it was not expected that all of them would be discussed, but in all instances, detailed information was required. The availability of food was often mentioned; the effects of climate, lack of technology and poor transportation were considered. Most candidates noted economic factors, mentioning income, the use and preservation of seasonal foods and shopping facilities. Culture and social habits were sometimes discussed; the influence of parents, peers and religion were mentioned. The level of nutritional knowledge and cooking capability were often noted as were special diets and state of health and the need to choose foods which would be suitable for individual needs. Most candidates wrote in detail on the influence of appearance, flavour and texture on food choice, giving examples to illustrate each point.

Question 4

- (a) This question was one of the most popular in **Section A** and there were many high-scoring answers. It was expected that the structure of monosaccharides, disaccharides and polysaccharides would be discussed in detail. Examples of each type were requested in the question together with information on where each could be found. Answers were rather weak on characteristics of the different types of carbohydrate although many candidates noted their degree of sweetness and their solubility. Most answers gave adequate detail on the various forms of polysaccharide and demonstrated a high level of knowledge on their structure, sources and functions. Diagrams were often included as a way of displaying information. This is always useful because many candidates find this method easier than explaining structures in words.
- (b) The digestion of carbohydrates was well known and many candidates scored full marks for their accounts. Accuracy in naming enzymes, the part of the digestive tract in which each was found and the result of each process was essential to gain credit.

- (c) Although there were many good explanations of BMR. It was disappointing to find that many candidates could offer little information. A definition was essential. It was not always known to be the amount of energy required to keep the body alive and that is required for involuntary activities such as blood circulation, heartbeat and breathing. Some candidates gave accounts of how BMR could be measured. It was expected that body size, gender, age and state of health would be among the factors known to affect it. Good answers explained how each factor listed would have an effect on Basal Metabolic Rate.

Question 5

- (a)(i) Credit was given for detailed information on the choice of ingredients for flaky pastry. It was expected that strong, plain flour would be recommended because of its high gluten content and its lack of chemical raising agent. A hard fat with a high degree of plasticity should have been named so that there would be a chance to reduce melting during rolling and folding. Butter would have been a suitable choice because of its colour and flavour although hard margarine is less expensive. Most candidates noted that lemon juice is added because it helps to develop gluten and salt is needed to develop flavour. Water should have been included in the list of ingredients although many candidates failed to mention it. Better answers noted that water should be very cold to avoid melting fat.
- (ii) The method of making flaky pastry was well known and candidates were able to give detailed instructions. Reasons for each stage of preparation were usually given and diagrams were often included in support.
- (iii) It was important that a baking temperature for flaky pastry was included. It was expected that candidates would explain the changes taking place when the pastry was being cooked to emphasise the importance of the correct temperature for successful pastry. Candidates could have mentioned that the heat of the oven would cause the air trapped in the mixture to expand, pushing the layers apart. The water in the mixture would be converted to steam, an additional raising agent. Good answers described the changes taking place to starch during baking, the absorption of fat by the starch and the coagulation of protein. Credit was given to those who indicated that if the oven was not hot enough, the fat would run out of the pastry before the starch could absorb it.
- (b) The use of frozen, ready-made puff pastry was not well discussed. Most candidates mentioned that it saves time and is useful for working women. Other points made were that it gives a reliable result and might be chosen because of a lack of skill at making puff pastry; and that it could be difficult to make in hot climates. It is expensive but will increase the range of possible dishes. A few candidates noted that it has to be given time to thaw so forward planning is needed.

Question 6

- (a) It was expected that candidates would state the conditions required for the growth of micro-organisms. The main points to emphasise were that protein denatures at 70 C and since bacteria are protein they are denatured during jam-making, bottling and canning, and during the pasteurisation process of milk treatment. UHT milk is produced at a temperature of 135 C. It was well known that at very low temperatures micro-organisms are unable to multiply but are not destroyed. Details on the changes taking place during freezing were required; there were few good explanations of fast freezing. This was an essential part of the answer since if the freezing temperature is not low enough, the texture of the food is not maintained on defrosting. Blanching of vegetables could have been mentioned since it destroys enzymes which would bring about changes in colour, flavour and texture impairing the quality of the food.
- (b)(i) Accelerated Freeze Drying was not a process known by many candidates. Instant coffee and vegetables were often named as examples. It was expected that candidates would state that food is frozen before the moisture sublimes under reduced pressure. The colour, texture and flavour are retained and the texture is open. There is no need to refrigerate AFD foods but they must be stored in airtight containers because water will be absorbed readily, leading to spoilage.
- (ii) The pickling process was described well; popular examples were named fruit and vegetables. Most candidates correctly stated that when the prepared fruit or vegetables were covered with salt, water was drawn out of cells by osmosis. When vinegar was poured over the food after packing into jars, it was taken up by the cells in place of the water which had been lost. Micro-organisms are unable to multiply in acid conditions.

- (iii) Little was known about irradiation. It would have been enough to state that the process inhibits the growth of micro-organisms. Gamma rays can pass through large containers so food can be irradiated in its packaging. It is a quick process which does not involve heat so no damage is caused to foods. Spices are often irradiated; it is not possible to detect whether the process has been carried out.

Question 7

- (a) Most candidates were able to state that enzymes are catalysts which break down plant and animal tissues. Full marks were scored by those who were able to note that enzymes are specific and work best at temperatures between 25 C and 35 C. It was hoped that candidates would know that enzymes are destroyed at temperatures above 60 C and are inactive at low temperatures because they are protein in nature.
- (b)(i) Credit was given to any correct information on the tenderising of meat by enzymes. It was important that detailed answers were given. Better answers stated that during hanging, protease, which is naturally present in meat, breaks down connective tissue and convert glycogen to lactic acid. The muscles fibres become softer so the flesh becomes tender.
- (ii) Excellent accounts were given on the part played by enzymes in breadmaking. Full marks were scored by those who noted that the enzyme diastase in flour changes starch to maltose, providing food for the yeast. Maltase and invertase, produced by yeast, convert maltose to glucose; zymase produced by yeast then converts glucose to carbon dioxide and alcohol. The carbon dioxide is responsible for raising the dough.
- (iii) Candidates were a little uncertain about the action of enzymes in food spoilage. It was hoped that candidates would note that food is destroyed by its own enzymes. Those which bring about ripening continue to function when conditions are favourable resulting in changes in colour, flavour, smell and texture. The action of enzymes can be halted at low temperatures or the enzymes themselves can be destroyed by heat since they are proteins. Few candidates mentioned that blanching vegetables before freezing denatures enzymes.
- (iv) Most candidates were familiar with ways of retaining vitamin C when cooking green vegetables but often wrote at length on the many methods of preserving the vitamin C content. The question required candidates to restrict their answer to the effect of enzymes on the destruction of vitamin C in green vegetables. Good answers stated that ascorbase, present in cell walls, comes into contact with vitamin C when the cell walls are damaged, for example by cutting. Ascorbase can be denatured by heat so any advice on how this could be done was credited. Some candidates mentioned putting green vegetables into boiling water, others advised that adding small amounts at a time to boiling water would prevent the water temperature from falling too much.
- (v) The digestion of protein was well known by the majority of candidates. Full marks would have been gained for noting the action of each specifically named enzyme, for stating where it worked and for naming the end products. Information on the absorption of amino acids was not required.

Question 8

- (a) Many different uses of eggs in food preparation could have been discussed. Most candidates included thickening, binding, coating, aerating and glazing. Some considered emulsifying, enriching and clarifying. It was important that information was given on the effect of heat on protein and the temperature at which coagulation occurs. Candidates often described the effect of whisking on protein molecules and the contribution of lecithin to the emulsification of oil and water. Answers were generally good but, as in previous questions, detailed answers were required and only accurate information could be credited.
- (b) Candidates were usually able to state that egg yolk and egg white coagulate at different temperatures and that it is the presence of fat in egg yolk which increases its coagulation temperature. Most noted that continued heat causes the white to become rubbery and the yolk to become powdery because the protein has denatured. It was usually mentioned that hard boiled egg may have a greenish black discoloration of ferrous sulphate around the yolk. Few were able to state that it is caused by a reaction between iron from the yolk and hydrogen sulphide from the egg white. Better answers noted that syneresis will result if protein is overheated. Shrinkage occurs and any liquid is squeezed out. The process is irreversible.

- (c) Candidates were able to give competent explanations of the changes taking place during the storage of eggs. They noted the increase in size of the air space, the loss of water by evaporation and the loss of viscosity of the egg white. Most candidates mentioned the formation of hydrogen sulphide by the bacterial breakdown of protein.

Paper 9336/02

Practical

General comments

The quality of the written answers was generally very good. Scripts were clearly set out and candidates seemed to have had sufficient time to answer all parts of the questions. Occasionally pages were stapled together in the wrong order. This is inconvenient for the Examiner since time must be spent assembling answer sheets in the correct order. Page numbers are printed for guidance and are in the order in which the practical test is carried out - choice, time plan and written work. It would be appreciated if this problem was addressed in the future. Candidates are responsible for carrying out this procedure and must ensure that their work is in order.

Examiners are reminded that the instructions on the published mark scheme must be followed closely. A maximum mark available for each dish must be recorded as well as the mark awarded. For each dish, details must be given on colour, flavour and texture of the finished dish in order to justify the mark awarded. It is not appropriate to give single words such as 'tasty' or 'fine' since they give no essential information. It is not expected that phrases like 'could not fault' are stated. This conveys nothing to those who were not present during the working of the practical test. Similarly, as much detail as possible must be given to describe how candidates worked during the practical test in order to support the methods mark awarded.

Time plans were very good. They were usually written in sufficient detail so they would be valuable both for the candidate working the practical test and the Examiner marking the test. Occasionally candidates gave a little too much information; they tended to write out the entire method in detail instead of selecting essential details such as method, cooking temperature, cooking time and method of garnishing and serving. The amount of work to be carried out in the preparation time was usually clearly stated and it was encouraging to note that on many scripts the methods of serving and garnishing the dishes were set out in detail. The majority of time plans indicated regular washing up.

The part of the written answer which was a little disappointing concerned the practical reasons for choice. Good answers noted that the availability and cost of ingredients were considered and that dishes which did not need to be cooked made oven management easier. Many other points gained marks; a dish could demonstrate skill or the finished dish might be particularly attractive. Sometimes candidates noted that a dish could be quickly made or that the use of labour saving equipment was demonstrated. The range of possible factors was wide but some answers were repetitive. It was not appropriate to give detail of occasions for which each dish is suitable since these considerations would not be reasons for choice. This is only appropriate when dishes are asked for a particular occasion. Nutritional reasons for choice were very well explained by many candidates. They named nutrients in particular ingredients and stated how they would be used in the body. Credit was given, for example, for stating that a particular dish contains oranges which are a good source of vitamin C. This is important because it assists in the absorption of iron. No marks could be gained for stating that the dish contains iron which is good for health. Too many candidates simply refer to dishes as 'healthy' or state that particular foods are good sources of vitamins and minerals. At Advanced Level any information given must be precise and accurate. A few candidates wasted time by repeating facts about ingredients used in more than one dish.

Comments on specific questions

Question 1

This was the least popular question although those who chose to answer it selected a wide range of dishes to illustrate ways of saving money. Some chose cheaper, tougher cuts of meat and cooked them appropriately in order to be made tender. Recipes using offal were a good choice as were locally available fish. Eggs, milk and cheese are normally more economical than meat and fish so recipes which made use of those foods were suitable. Some candidates made dishes using pulses or TVP; all of these showed the use of economical protein foods. Economy was also demonstrated by the use of home-grown fruit and vegetables, locally grown produce and foods in season. In some instances convenience foods were used if their choice was justified. It was appropriate to show how money might be saved by choosing shorter cooking methods which save fuel. Pressure cooking and cooking using a microwave oven were often included. It was expected, however, that candidates would show variety; the question asked that each dish should show a different way of saving money. The dishes chosen showed a variety of skills.

Written answers tended to lack detail. It was expected that many methods of saving money would be well explained. Sometimes answers gave ways of saving money but did not explain how and why money would be saved. It was encouraging to note that many candidates stated that money could be saved by reducing waste or by making use of left-overs.

Candidates generally gave several ways of saving energy when cooking. Again, pressure cooking, steaming, using the microwave oven and making use of zones of heat to cook several dishes in the oven at the same time were mentioned but explanations of how fuel is saved were rare. It was hoped that candidates would explain how physical energy is saved when cooking. Since the question states that ways of saving energy should be explained, energy could be interpreted as fuel as a form of energy, or physical energy. Some candidates mentioned, correctly, that energy would be saved when electrical appliances and other labour-saving equipment were used. At Advanced Level, the widest interpretation of the questions was expected.

Question 2

This question was a popular choice. Candidates demonstrated the use of a variety of types of sugar but there was often repetition both in the types of sugar used and in the skills demonstrated. It was expected that each dish chosen would show a different use of sugar and a different type of sugar. Sugar was shown as an ingredient for trapping air during creaming and whisking, for sweetening, as a means of adding colour by caramelisation or by the use of brown sugar, for decorating, preserving and glazing. The range was wide so there was no need for repetition. Some candidates found oven management difficult when making their time plan because they chose only dishes which needed to be baked. Full marks were usually gained for listing the types of sugar available locally. Candidates were less confident about naming sugar alternatives. It was expected that names such as saccharine and sorbitol would have been mentioned more frequently, although candidates were generally aware that the main use of sweeteners is in beverages. A few answers noted that the long-term effect of artificial sweeteners is not known and that they may be responsible for illnesses. The current nutritional advice to reduce sugar was familiar to all candidates. They were able to give good accounts of the problems associated with a high sugar intake and suggested a variety of ways of reducing sugar in the diet.

Question 3

This question was very popular. Most candidates chose dishes well and were able to incorporate a variety of skills as well as a range of ingredients to thicken or set mixtures. As expected, most candidates chose to show the use of gelatine. Other ingredients included flour and cornflour (corn starch), egg, gluten and pectin. Some candidates demonstrated the use of egg in mayonnaise. The range of dishes was wide and many skilful dishes were used to illustrate thickening and setting. Unfortunately, candidates often omitted to indicate the thickening or setting ingredient in their chosen dishes so marks were lost. Rules to be followed when using the named ingredients to ensure success were disappointing. It was hoped that candidates would mention the need to stir sauces constantly, to use the correct proportion of thickening ingredients, to avoid overheating gelatine and to add it to mixtures in a thin stream, to avoid overheating egg custard and to add oil to mayonnaise in a thin stream. Credit was given for rules and explanations but there were few good discussions. Marks were awarded for suggesting any other ways of varying the texture of dishes. Some candidates named ingredients such as nuts and dried fruit, others suggested using raw or cooked fruit and vegetables. Wholegrain flour and cereals were sometimes named and a few candidates noted that texture could be varied according to the method of cooking. Dry methods of cooking give finished dishes with a dry outer surface whereas dishes cooked by moist methods have a softer texture. In all cases, full marks could only be gained by those who gave examples to illustrate the methods suggested.

The dishes chosen to show the use of yeast were extremely varied. Some chose savoury dishes such as pizza while others chose sweet dishes like savarin or Danish pastries. The range of skills incorporated was impressive.

Paper 9336/03

Paper 3 – Unsupervised Work

General comments

The individual studies were well presented and were interesting and informative. It was clear that most candidates had spent a great deal of time on their chosen subject and produced a worthwhile piece of work in the majority of cases. Occasionally subjects were chosen which did not lend themselves well to a study of this nature; some topics were too broad, such as Vitamin A, and gave no opportunity for original work, since the information already available is substantial. Nothing could be produced which was not already published. Sometimes parameters were not well defined and candidates drew conclusions from their studies which they applied to the rest of the population; it is clear that results obtained from studying a small group cannot be generalised. Sometimes the group of people being studied was not identified. In the weakest studies, the content of the study bore little relationship to the title. Candidates should be reminded that the title of the special study should be an accurate reflection of the content. It was helpful when candidates followed the framework set out in the mark scheme which is available and supplied to all Centres. The mark allocation for each section is clearly set out and provides valuable information for candidates.

Choice/Reasons for choice

In all cases the choice of topic was relevant to the syllabus but, as previously mentioned, parameters were not always clearly defined. The title must be specific in order that the limitations of the study can be appreciated. The study could, for example, be an investigation into the protein content of packed lunches taken by children in a particular class of a particular (named) school. It would not be possible to study the protein content of packed lunches; the subject is too wide to investigate. Some studies did not lend themselves to a wide range of investigative procedures so candidates limited the marks available to them. It is important that candidates bear this point in mind when choosing their area of study. It is important that reasons for choice of topic are given. Most candidates gave at least one reason but better candidates gave several.

Planning

This section was often omitted or was considered too briefly. Candidates must define the aims and objectives of their study. They may formulate a list of questions they wish to address in the course of their study or they may outline what they wish to find out in their investigation. Many candidates listed their proposed activities but did not include an evaluation of their research in their plan. It was encouraging to find that many candidates included a time scale for their proposed activities; this reminds them of the amount of time they have for the study and encourages them to be realistic about the length of time each section will require. It is important that each method of data collection used is considered in detail. Most candidates mentioned the methods they intended to use but gave no further information. When questionnaires are used, it is important to explain how respondents are selected and to justify the type of questions to be included. If observations, shopping surveys and interviews are to be conducted, justifications for choosing those methods of data collection should be given. This section should demonstrate that candidates are able to be logical in their planning. It was encouraging to find that this was generally the case.

Theoretical research

All studies gave evidence of some research but the amount and quality was variable. The poorest studies used limited sources, often only one, and rarely acknowledged them. Although it is commendable that candidates use the Internet to research their subject, it is inappropriate to include entire pages. Some candidates highlighted sections of printed pages. Again, this is not appropriate, since the candidate's own wording should be used to summarise their research. In many studies, the wording used was obviously not the candidate's own since there were changes of style and format according to the source used. All candidates listed their sources in the bibliography, but it is expected that reference is made to the source wherever appropriate; this was not often found. Although there is no recommended length for the research section of the study, it must be borne in mind that subsequent investigative work is based on the theoretical research which the candidate has carried out. The research report should be a summary of the information gathered; few candidates managed to do this well. They tended to write out everything they had found out on their topic. There were many research reports which were below the standard expected at Advanced Level.

Investigative methods

The most successful studies used a wide range of investigative methods. Many candidates used at least five different methods of data collection. Some visited shops, farms, factories and hospitals, others observed, conducted questionnaires and compared and evaluated cooked dishes. Photographs were often included and as well as providing useful information, they add to the attractiveness of the study. It was expected that for each method used, candidates would explain how, where, when and with whom the investigations were carried out. The majority of candidates correctly included samples of questionnaires, lists of questions used in interviews and letters. Although it was often stated that interviews would be carried out, it was sometimes impossible to find any evidence that interviews had taken place. It was a matter of some concern that many candidates interviewed very busy people and appeared to ask questions which could have been answered by looking in books. Candidates should be reminded that questions should be asked which result in data which can be collated and that objective questions should be asked. This is an important section to which many marks are allocated. High marks will only be gained if candidates can demonstrate a detailed knowledge of each of the methods they use. Those candidates who merely listed the methods they intended to use could gain few marks.

Collation of data collected

This section is as important as the previous section since it must take each of the methods of data collection used and present the information collected. Candidates usually presented their findings very well and were able to demonstrate their skill at computer graphics and also at methods of presenting data without the use of a computer. The best studies showed many different methods although most showed several. The range included prose, tables, line graphs, bar charts, pie charts, photographs and comparison charts. Some produced charts of nutrients and others, who chose to prepare dishes, drew up charts to evaluate dishes according to specified criteria. Most of the data was well presented but in some cases titles and keys were omitted. All of the data should be presented separately from summaries and conclusions. Although it is commendable to carry out investigative practical work, the inclusion of a selection of recipes without any explanation has no value. Several candidates included a recipe section without justification.

Analysis/Conclusions/Recommendations

This part of the study was not well done. Many candidates seemed to attach little importance to it and wrote very briefly. It is essential that candidates present an accurate summary of the evidence based on the data they have produced. It is expected that the evidence will be interpreted and conclusions drawn. It is not enough to state that 'the data shows that...' without supporting the statement with evidence. The conclusions drawn should lead the candidate to identify recommendations for further action. These could be for implementation by individuals, families, organisations or governments. They may or may not be practical but the importance is in the fact that the candidate can develop solutions based on the evidence of their study. Weaker candidates listed recommendations which had little or no basis in their study.

Evaluations

This was possibly the section in which candidates were the least successful. Many candidates made no reference to their original aims and objectives so were not able to comment on the success of their study.

The success or lack of success of the investigative methods used should be assessed since this would be valuable information for future investigations; suggestions could be made for improving weak areas. Most candidates were able to state benefits they had gained from carrying out the study and these were very well expressed. Some mentioned that they had become more confident and had enjoyed meeting people from other backgrounds; others were pleased to have become more proficient at using particular computer programmes. All of these are important.

Presentation

The general appeal of the work was good. Content lists, acknowledgements and bibliographies were included. The majority of candidates included a diary of activities. The covers were of a high standard demonstrating the artistic talent of many candidates. They are to be congratulated on the presentation of their work.

There were, however, several candidates who, in their acknowledgements, mention members of their family or friends who had helped with typing or illustrations. It must be emphasised that the special study is part of the Advanced Level assessment; Teachers must ensure that all work submitted is the candidate's own.