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## EXAMINATION REPORT

Food Technology

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### 1997 HIGHER SCHOOL CERTIFICATE EXAMINATION REPORT FOOD TECHNOLOGY

In 1997, 3368 candidates attempted the 2/3 Unit (Common) Paper and 483 presented for the 3 Unit (Additional) Paper.

Section I of the 2/3 Unit Paper contained 12 multiple choice items.

n Sections II and III of the 2/3 Unit, the 3 Unit Projects and written papers the responses were ranked relative to the quality of the responses and submissions.

This report has been compiled to provide assistance to teachers in preparing students for the 1998 examination and, therefore, has details of student responses to the 1997 Higher School Certificate examination papers.

To give teachers assistance in guiding students in preparation for the Independent Research Project, a detailed report for each of the components of the Project has been compiled.

### 2/3 UNIT (COMMON)

### Section I

### **Questions 1–12**

The following table is an item analysis of Questions 1–12. It shows the percentage response for each of the possible choices. The correct response for each is also indicated by an asterisk (\*).

Item	Response A	Response B	Response C	Response D
1	4.6	6.25	79.27*	9.88
2	9.58	21.00	34.67	34.67*
3	36.74	5.38	46.11*	11.72
4	9.22	11.26	21.60	57.77*
5	58.22*	23.88	15.74	2.10
6	55.00*	18.44	6.01	20.34
7	31.00	54.22*	4.45	10.30
8	55.75*	0.54	38.27	5.38
9	1.05	43.68	50.47*	4.72
10	15.71	11.69	13.76	58.49*
11	35.03*	27.52	9.04	28.06
12	21.21	58.67*	0.45	19.56

### **Section II**

### **Question 13 Food Manufacture**

### **Above Average Responses**

Scripts in this category showed full understanding of the question through precise answers and all four sections were well handled. The responses contained accurate information using specific and correct terminology regarding food spoilage, packaging and storage/transport methods. The information was relevant to the foods chosen and candidates presented their information clearly, either in a set structure or as an integrated discussion throughout the four areas.

These scripts identified the most important causes of food quality loss and linked them to effects on the product. They showed a direct relationship between specific packaging materials which lessen food deterioration. The suggestions for transport and storage conditions were relevant to each food example and noted the impact of each on quality retention. They identified relevant food technologies as agents of change in society by briefly discussing social implications arising directly from this technology.

### **Average Responses**

Scripts awarded average marks provided general descriptions with little or no relationship to their impact on food manufacture. Although some use of correct terminology in the answers was apparent, confusion between meanings existed. The answers were couched in simple language, lacked clear expression or provided limited discussion, while examples given either lacked clear explanation or were too general.

These average responses also tended to fail to satisfy all aspects of the question, with some sections being noteworthy for:

- confusion over major and minor causes of food spoilage and the relevance to each food product;
- a limited description of the role of packaging, transport and storage without reference to its impact on product quality, as well as
- confusion over social implications.

These scripts tended to look at food spoilage from the domestic rather than the retail level.

### **Below Average Responses**

These scripts showed that candidates had only a vague understanding of the topic. They reflected limited knowledge of food spoilage or food packaging materials and their impact on quality loss. They provided very limited discussion of transport or storage conditions. Misinterpretation of the term *social implications* led to a discussion of the impact of societal pressure on the food manufacturing industry. All sections of the question were either not attempted or were mostly irrelevant.

Candidates used simple or general—type language in sentences which were often disjointed, with poor descriptions and lacking in understanding of the terms *spoilage*, *packaging*, *storage*, *transport*, or of the social implications of food manufacturing technologies.

### **Question 14** The Australian Food Industry

### **Above Average Responses**

- (a) These responses provided excellent information. Each technology differed and a full explanation was given of how food was obtained and prepared. Correct terminology and specific examples were used for each technology, incorporating its purpose, construction and specific food use. (For example, a spear constructed from long, straight branches with fishbone barbs embedded at the end). Candidates in this category related the function of each technology to the purpose for which it was obtained/used.
- (b) Here these candidates showed considerable knowledge of historical facts, events and dates when outlining how each chosen factor has influenced the historical development of the Australian food industry. In these responses this information was linked to specific areas of development within the industry and made use of relevant examples which showed how the industry has changed.

### **Average Responses**

- (a) Responses in this category were limited in their interpretation of the question. Candidates either named the technology but did not explain fully how it was used or were unable to name the technology although they could describe it. Often their description of a technology was simply common knowledge.
- (b) In this part these candidates were able to explain some detail about each of the three factors but seldom linked it to the historical development of the Australian food industry. Generally these responses lacked depth as they gave only a few general examples of the impact of each of the chosen factors on the Australian food industry.
  - In these responses candidates generally did not choose the Government or Environmental factors. The most commonly selected factors were Technology, Lifestyle and Immigration.

### **Below Average Responses**

(a) These answers contained major errors, lacked merit or were quite incomplete. One or two disjointed facts were included which might have been relevant but showed little or no understanding or explanation. Poorer candidates did not understand the term technology and simply gave examples of foods eaten by Aborigines. Rewriting of the question was common, with the same technology or system being repeated in each point. Some answers, which were incorrect and included little or no explanation, were obviously made up, eg: Aborigines used indigenous animals, eg pigs, horses, rabbits.

(b) Here these responses tended to be very sketchy, misinterpreted the question or gave wrong information. A common characteristic was rewriting the question without giving any relevant information.

### **Question 15 Food Marketing**

### **Above Average Responses**

In these responses candidates showed a thorough understanding of marketing and the terminology used in the question.

- (a) The advantages and disadvantages of food marketing for consumers were clearly identified and the two examples in each section clearly differentiated.
- (b) Discussion of environmental issues was related to all areas of marketing, not just promotional activities and students clearly outlined both waste and pollution in their discussions. In these responses suitable examples for both waste and pollution were identified.
- (c) In answering this section, these candidates discussed the ethical considerations as issues and did not simply make general statements.

### **Average Responses**

Here candidates either struggled with the terminology or misread the question.

- (a) In these responses candidates identified the advantages and disadvantages for the consumer, giving a brief discussion.
- (b) In answering this part, candidates discussed waste issues but ignored pollution problems, and focused on the production of food rather than marketing.
- (c) In answering this part, most of these candidates identified the marketing mix but some responses confused ethical considerations with general marketing issues, for example, referring to pricing for profit rather than fair pricing.

### **Below Average Responses**

- (a) These candidates showed a limited understanding of marketing, confusing advantages and disadvantages for manufacturers rather than those for consumers.
- (b) Candidates often stated solutions to waste and pollution problems rather than identifying how marketing of food contributes to such problems. Here, explanations also focused on consumer behaviour, quoting, for example, littering.
- (c) Many candidates did not identify the four aspects of the marketing mix, while their understanding of the term ethical was poor. Many responses relied on textbook statements for their discussion of the marketing mix but failed to relate their information to the question.

### **Question 16 Food Product Development**

Candidates who did not understand the question chose products with a limited number of ingredients. This curtailed their opportunities to provide clear explanations using correct technical terminology.

Those who answered well obviously relied on the knowledge gained from the case study of a food product undertaken in the mandatory applications.

### **Above Average Responses**

- (a) Candidates chose a relevant/appropriate product and identified the correct type of product development.
- (b) A thorough understanding of the function of the significant ingredients in the final product was evident.
- (c) (i)

and

- (ii) Here candidates were able to identify and explain the techniques and equipment related to their chosen food product.
- (d) An extensive knowledge of methods used to determine consumer demand was obvious in answers to this part.
- (e) Answers were concise and non–repetitive since candidates understood and clearly explained the impact of the new product on the health/lifestyle of the consumer.

### **Average Responses**

- (a) Here candidates often chose an inappropriate product which limited their responses, while the type of development of a product was often omitted.
- (b) Candidates listed ingredients but had a limited understanding of the function of such ingredients within the product. Relationship to nutrition was frequently mentioned but this was inappropriate.
- (c) (i)

and

- (ii) A basic knowledge of techniques and equipment was shown although candidates either gave a limited explanation or were unable to provide the name of the technique or equipment involved.
- (d) Responses here identified methods used to determine consumer demand, but these were only listed and no further explanation was provided.
- (e) Discussion in this part was limited to one or two points only in these responses.

### **Below Average Responses**

- (a) Here candidates had no understanding of types of product development.
- (b) Although some ingredients were listed, no function was provided.
- (c) (i)

and

- (ii) Here little knowledge of techniques and equipment was apparent. Many candidates failed to attempt these sections.
- (d) This question was often misinterpreted, giving reasons for consumer demand rather than providing methods used to determine such demand.
- (e) Here answers were often limited to one or two points, with incorrect facts or little explanation being provided.

### **Section III**

### Part A: Core Strands

### **Question 17 Food Manufacture**

### **Above Average Responses**

An above average response tended to choose a product that involved a range of production stages and quality control procedures, eg Potato Crisps, Ice Cream, Milk etc.

- (a) Answers here were very good and included a description of product, size, ingredients etc.
- (b) This part was answered with detailed information about stages of production. Flow charts were used giving clear information about stages from raw product to distribution.
- (c) Here candidates discussed quality control, HACCP systems, computerisation, personal hygiene, storage, temperature, to name a few.
- (d) In answering this part candidates discussed the target market, portion sizes suitable for canteens, pricing (cheaper for school students) and advertising both in the market place and at school.

### **Average Responses**

Candidates tended to answer either one or two parts well and either neglected others or produced limited general responses.

- (a) Answers here were often brief and lacked detail.
- (b) Many candidates produced a flow chart with one word explanations or lacking any mention of systems or equipment used.
- (c) Candidates concentrated on personal hygiene, the necessity to have hair tied back, to wash hands and to wipe benches down, instead of discussing cross—contamination, temperature and storage.

(d) Here these candidates concentrated on promotion and advertising, often referring to the school canteen or students as a target market, as well as appropriate pricing and portion size.

### **Below Average Responses**

These responses often tended to be brief, with little detail in any part. Many candidates also chose a product that did not lend itself to all parts of the question, eg a salad sandwich.

- (a) Answers here often consisted of one word, eg giving only a name of a product, instead of a concise description.
- (b) Answers here were very basic and included neither discussion of systems used nor detail of equipment or procedures.
- (c) Here candidates tended to concentrate on personal hygiene, including washing hands, rather than discussing critical control points, storage temperatures or equipment.
- (d) In answering this part candidates concentrated on promotion rather than a target market, price etc. These candidates often failed to relate their answers to the school canteen.

### **Question 18 Food Manufacture**

### **Above Average Responses**

These were well structured responses. The majority of candidates answered the question systematically. They possessed a detailed knowledge of the labelling laws and their requirements, and referred to the specific legislation dealing with specific aspects of the label, viz, what can, can not or may appear on a label under certain (described) circumstances. Reasons and explanations were given for the legislative requirements. They dealt with each error/omission on the label shown in the question and indicated why such corrections had to be made to the label. In addition these candidates discussed specifically misleading statements and false claims.

### **Average Responses**

Here candidates knew the legislative requirements for food labels, but they tended to provide a list of such requirements without giving any explanation. Brief references were made to the specific legislation, but their explanations were poor and/or the legislation was not named. Limited reference was made to the label in the question but candidates tended to list or discuss only some of the errors or omissions in the given label. Some inaccuracies given related to what items were covered by which legislation — this resulted in misleading and false comments.

### **Below Average Responses**

Candidates generally listed what must appear on a label giving no explanation, and little, if any, mention of legislation or the relevant acts.

Some candidates indicated only the errors and omissions which occurred on the label given, again making little or no reference to the legislation or acts. Here the approach to the question was very simple, relying on lists but giving little or no explanations.

### **Question 19 The Australian Food Industry**

### **Above Average Responses**

Candidates clearly stated one sector of the food industry (there were five in all) and gave a detailed description of that specific sector. Detailed discussion of two categories followed.

Social conditions included healthier diet, greater range of fresh foods, competitive prices and lifestyle changes.

National economy responses included points on exports, employment, greater market share.

Environmental implications were very well covered. Aspects discussed included pollution, over–fishing, over–processing, over–packaging, waste disposal, and energy.

### **Average Responses**

Candidates named a sector of the Food Industry but gave little or no description. Sectors covered by most of these students were social and environmental, while discussion on the National Economy, if attempted, was very limited, concentrating on employment. Candidates in these responses dealt with one section very well, usually the environment sector.

### **Below Average Responses**

Poor responses failed to nominate a sector of the industry but, instead, discussed the Food Industry and its legislation generally. Often all three sections were discussed, but not in depth, while information given was incorrect or very limited. Some students confused the terms social conditions and socialising.

### **Question 20** The Australian Food Industry

### **Above Average Responses**

Here students showed a clear understanding of the question and provided accurate, precise responses to all parts of the question. They referred to three recent food innovations and explained in detail their benefits (or otherwise) for the consumer, industry and the environment. These candidates were able to provide three specific examples of innovations in the food industry and their effects on each of the given areas. These responses were both well presented and fluent.

### **Average Responses**

Most students were able to provide three good examples of food innovations but were unable to describe them either accurately or in detail. They gave limited examples of benefits in the three areas and often reiterated information, repeatedly discussing their convenience and whether they were recyclable and/or profitable. Some students discussed packaging as an innovation in general terms or else discussed three different types of packaging as separate innovations.

### **Below Average Responses**

Here students discussed innovations that were inappropriate or out—dated, eg refrigerator, freezer or microwave oven. They attempted to give a superficial discussion of the benefits of each and often did not relate such points to the food industry at all. Presentation was poor and the information provided was vague and, at times, incorrect.

### **Part B: Option Strands**

### **Question 21 Food Marketing**

### **Above Average Responses**

In excellent responses, answers specifically addressed the three aspects of marketing chosen. A clear discussion of the relationship of three specific marketing strategies to the chosen product showed a thorough grasp of the topic. Full details were supplied for these strategies, following a short introduction to show the role of the strategy in a general marketing plan. Candidates used marketing terminology confidently in relation to their studied food product. These responses often included specific statistics, with a summary of the product's history serving as an introduction. Mention of 4Ps and SWOT Analysis were applied within the response.

### **Average Responses**

In these responses candidates showed a fair understanding of the marketing concepts, but made very little link to their chosen food product, or possessed a good understanding of the food product, but little understanding of its relationship to the three chosen marketing aspects. These responses repeated facts and had difficulty in differentiating between Market Research and Product Planning facets. Promotional analysis was too superficial and dealt only with advertising. Either all three parts were discussed briefly or only one part was discussed well. These responses showed a good understanding of market research and promotion of products.

### **Question 22 Food Marketing**

### **Above Average Responses**

Candidates in above average responses possessed strong ability to present logically strategies linked to regaining the market share after a product recall. These were related to the 4Ps, HACCP, QA, QC, SWOT and market research. The more able students discussed the inter–relationship between all marketing aspects, incorporating in their responses relevant examples from recent occurrences of tampering in the food industry. Excellent candidates presented analyses of market–plan outcomes, with a recognition of the need for a company's long–term and short–term goals for regaining their market share successfully.

### **Average Responses**

Average candidates often presented vague responses, concentrating on only one or two aspects of the Marketing Mix. Often these students focused on price or promotion by a large company recently affected by product recall. These candidates presented prepared marketing answers with very little reference to the specific question.

### **Below Average Responses**

These answers were frequently brief and discussed product tampering and food spoilage. Students offered one or two solutions to overcome contamination problems, making little or no reference to marketing strategies aimed at regaining Market Share. Candidates concentrated on tamper–proof packaging and provided one or two examples of promotional strategies. These responses showed poor understanding of the question's requirements.

### **Question 23 Food Product Development**

### **Above Average Responses**

In these responses candidates had a clear understanding of both parts of the question. They gave a wide variety of reasons for product failure, citing examples and relating them to the reasons quoted. Particular methods of product success were given and explained, while parts (a) and (b) were discussed independently and without repetition of information.

### **Average Responses**

Candidates in this range provided a variety of reasons for product failure, but explanations and examples given were limited. Candidates attempted to relate part (b) to part (a) which, however, resulted in repetition. Methods given for ensuring product success were not specific.

### **Below Average Responses**

In this category candidates listed few reasons for product failure, while reasons given for the success of the product were mostly the reverse of those given earlier in part (a). Explanations, when given, were very general.

### **Question 24 Food Product Development**

### **Above Average Responses**

In these responses candidates identified a wide range of reasons for new product development, eg specific consumer needs, technological developments, environmental issues, company objectives and national concerns. The reasons given were well explained and examples given, eg, Me—toos and line—extensions were related to reasons for product development.

### **Average Responses**

In this category candidates provided reasons which were generally centred around consumer needs and profit—making. Brief explanations and limited examples were given.

### **Below Average Responses**

Here candidates mentioned a few reasons, mainly related to consumer needs. Very little explanation was given and few examples listed. Often Questions 23 and 24 were confused, with points in response to each question being given here.

### **3 UNIT (ADDITIONAL)**

### **Section I**

### **EITHER**

### **Question 1**

Some students did not allocate their time judiciously and spent too long on this question.

### **Above Average Responses**

In above average responses candidates showed a clear understanding of the question. They were able to provide a good explanation of the two topics chosen, giving appropriate examples of each. These answers showed a clear understanding of the decisions made by the Australian food industry.

### **Average Responses**

In average responses candidates clearly showed a reasonable interpretation of the question. They briefly discussed the two topics chosen but failed to give examples that reflected decisions made by the Australian food industry.

### **Below Average Responses**

These responses were very limited and clearly showed lack of understanding of the question. They were very vague, were couched in very general terms and showed no relationship to the Australian food industry. Irrelevant material was often included or was confused with overseas trends or, in particular, with multicultural influences within Australia, which were mistakenly treated as being overseas trends.

OR

### **Question 2**

This question was the more popular choice in Section I of the paper. The majority of students attempted to answer it by discussing health concerns and ethical issues which are influenced by advertising. Generally, students found it difficult to correlate cost analysis and safety issues with advertising of food products.

### **Above Average Responses**

Above average responses provided a thorough analysis of the science of advertising. A significant range of issues/concerns were discussed and excellent examples of specific food products provided as part of the discussion. A sound knowledge of the issues/concerns and their relationship to food technology was evident.

### **Average Responses**

Average candidates provided some basic discussion about advertising. Students discussed one or two issues though not all were linked to advertising of food products or consumer choices. Discussion of issues/concerns was limited and examples not explained.

Here students were somewhat confused about the issues or concerns involved.

### **Below Average Responses**

In these responses, students showed a poor understanding of the question and therefore provided limited analysis.

Issues or concerns were discussed in isolation, with no relationship to consumer choices or advertising being indicated. Little knowledge of the issues or concerns was apparent and some referred to were not related to food technology.

Very limited use of examples was made and often only one issue or concern was discussed.

### **Section II**

### **Question 3**

This question was the least popular choice in Section II. Most students could identify only a few significant changes in the evolutionary development of the Dietary Guidelines for Australians. In most cases students' knowledge of the guidelines was inadequate.

Poor time management during the examination meant that candidates had less time in which to answer the questions that were worth more marks.

### **Above Average Responses**

These responses presented the information in a logical format; candidates in this category obviously possessed extensive historical knowledge of the factors and influences which led to the development of the dietary guidelines. They also provided a thorough and in–depth understanding of the guidelines and their relationship to nutritional disorders. Above average candidates showed a reasonable understanding of the question and provided a range of information about the evolution of the dietary guidelines which included both dates and names of organisations.

### **Average Responses**

Candidates rarely examined the factors which led to the development and revision of the dietary guidelines. Information in these responses was brief and lacked specific details about the evolution of the guidelines. Most students provided a list of them but made little or no reference to nutritional disorders.

### **Below Average Responses**

These responses were often quite brief and reflected a lack of understanding of the evolution of the dietary guidelines. Many showed little or no knowledge of them or presented inaccurate/irrelevant information.

### **Question 4**

### **Above Average Responses**

These responses gave accurate descriptions, including dates of legislation at the Federal, State and Local levels that protect consumers in their purchase and use of food products. Links were made between the levels of government. Candidates ably described the ways in which the regulations protect the consumers, giving relevant examples and a critical analysis of the ways in which this is done.

### **Average Responses**

These responses named some acts which they described in vague terms but did not discuss how they benefit the consumer. Information about levels of government concerned was confused, while misinformation was given regarding the administration of such acts.

### **Below Average Responses**

In these responses there was confusion about levels of government; they did not show a clear understanding of the various acts and failed to differentiate between them. Information given was frequently irrelevant or badly expressed.

### INDEPENDENT RESEARCH PROJECT

This year 484 Independent Research Projects (IRPs) were submitted. The standard was again pleasing with a wide range of projects being presented. The following were awarded prizes.

Genetic Engineering: What we know and what we should know

[University of Western Sydney]

Food Product Labels: The Consumer Confusion. A New Solution

[FTA (NSW)]

The Battle of the Shopping Trolley [HEIA NSW Division]

The Noodle Revolution [UNSW]

### **General Comments**

The following points have been generated to assist teachers in guiding 3 Unit candidates in the preparation of their projects.

- Many reports related to health or lifestyle issues. These topics are permissible only if they are dealt with in the context of food technology.
- It is important to focus the research question so that a particular methodology may be devised to answer the specific question. Some questions were too broad and could not be easily answered within the limitations of the Independent Research Project. Others simply became a narrative which showed no research techniques. In such cases it is difficult to come to any specific conclusions. If a general question is asked, then the limitations of the research should be indicated.
- Teachers and students are reminded that they cannot legitimately apply conclusions based on a small study group to the general population, unless they have set up their sample group very carefully. To say, for example: I have surveyed a group of 20 (or 100) from my local area and have proven that this occurs for the Australian population is not permissible. All that can be said is that this appears to be true for the group surveyed and under certain circumstances it may apply to a larger population. The word prove should not be used in this context.
- Too often results of some primary research are given and no effort is made to include these results in the body of the report. Furthermore, no effort is made to analyse the results or compare them with any secondary research undertaken. If primary research is undertaken, it should be used in the context of the whole report, not just as an *add—on* at the very end.
- An effort should be made to include some criticism or limitations of the research methodology.
- It is not necessary to include in the appendix all copies of collected secondary resources or survey sheets. Only those that are particularly relevant should be included. Secondary sources should be correctly cited throughout report and referenced in the Reference List.

### **Synopsis**

The synopsis should provide a summary of the project, including a clear and concise description of the topic, the methodology used, the findings and the conclusions drawn. As such, the synopsis should be written at the end of the study.

### **Above Average Projects**

The better candidates provided a concise description of the topic, the research methodology used and the findings, as well as the conclusions drawn from the project. The substance of their projects was clearly understandable from the synopsis.

### Average Projects

Although average candidates gave an outline of their projects, they lacked specific information about methodology. Their findings and conclusions were often mentioned only briefly, although all important aspects were generally included.

### **Below Average Projects**

Poor candidates presented synopses which neither adequately described methodology and findings nor included conclusions at all. These candidates often did not understand the difference between the *synopsis* and the *rationale*.

### **Rationale**

This should be a statement of the aims of the project and an outline of its relevance and importance.

### **Above Average Projects**

In these projects the rationale very clearly stated the aims of the project and included adequate discussion, defining and justifying its importance and relevance. The importance was related to community, commercial and food technology issues as appropriate.

### **Average Projects**

In average projects the rationale aims tended to be expressed only briefly or vaguely. Their relevance and importance were discussed only in general terms and their relationship to community/commercial and food technology issues was not clearly explained.

### **Below Average Projects**

In these projects the rationale was non–specific, vague and not focused on any specific issue. Aims were mentioned briefly while the relevance and importance of the topic were only poorly explained and justified. Many of these candidates did not understand the difference between *synopsis* and *rationale*.

### **Body of the Report**

The body of the report should not be greater than 2000 - 2500 words. Marks can be deducted for projects which are over-length.

### It should contain:

- a review of literature and other primary and secondary research sources used;
- a detailed description of investigative and/or experimental procedures designed and undertaken, and
- an analysis and discussion of the results of the project.

### **Above Average Projects**

Above average candidates used extensive secondary resources which were well reviewed and referenced. Methodologies were both well explained and appropriate to the aim of the report. Primary sources of research were incorporated throughout and inter–related with secondary sources. Such primary research was well interpreted and analysed, and indicated wide interaction with the community/commercial/industrial domain. Research was well focused on technological activities, scientific aspects and/or issues in food technology. The body of these reports was succinct, well organised, with ideas being well expressed and, therefore, well communicated.

### **Average Projects**

These projects often presented both primary and secondary research but failed to integrate both into the body of the report. The secondary resources were frequently not referenced, while the findings from the primary research were discussed only briefly and description of the methodologies used was limited, as were analysis and interpretation of results.

### **Below Average Projects**

These projects were often based on a poor topic selection which did not relate to issues in food technology. Primary and secondary research, or both, were inadequate, lacked analysis and interpretation and, frequently, were descriptive only. The methodologies used were neither discussed nor appropriate to the aims of the project. The report, as a whole, also showed limited interaction with community/commercial/industrial domains. The report was badly expressed and its presentation was disorganised.

### Conclusion

This should include conclusions drawn from primary and secondary research and recommendations based on results of investigation undertaken.

### **Above Average Projects**

Excellent conclusions comprised a detailed discussion of the main findings of the research and indicated whether the aim had been achieved. This was followed by recommendations which were viable and related both the topic and the findings. The better candidates competently evaluated their research methods, giving an indication of any inadequacies in such methods.

### **Average Projects**

Average conclusions provided a brief discussion of the findings and recommendations of the research. Some included one recommendation that was not yet achievable or were written in general terms.

### **Below Average Projects**

Below average conclusions provided a very limited discussion of the main finding, which did not deal with the aim of the project. Either no recommendations were made or those made were unachievable or unrealistic. Many projects could not be concluded because they lacked enough direction for research.

### **Diary**

The diary should be bound with the rest of the project on A4 paper and not presented in a separate booklet. It should be convincing and genuine and should show a sequential account of the development of the project.

### Resource List

The resource list should provide a list of primary and secondary resources used in the study. Each resource should be annotated and show evidence of interaction with the community, commercial and/or industrial domains.

### **Above Average Projects**

These drew on a variety of resources (both primary and secondary), including the most up-to-date information. The list was well referenced and described the value of each resource.

### **Average Projects**

Although well referenced, these projects relied on a limited variety of resources, focusing mostly on books or texts. Annotations were brief.

### **Below Average Projects**

These listed only a few resources and gave either very brief or no annotations.

**NB** Many Independent Research Projects provided references in the Resource List which were not cited in the **text** of the Report. Such inclusions are unacceptable.