2010 Health and Food Technology

Intermediate 2

Technological Project

Finalised Marking Instructions

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STEP 1 Total mark allocation − 13 marks

1 : 1 Identification of the key points with explanation

The candidate should identify the 'core' key points – these are all the main key words of the Technological Project brief.

The number of 'core' key points which can be identified will depend on the wording of the Technological Project brief.

Candidates should number each key point identified.

Identify the key points – 2 marks

Candidates who record all the 'core' key points.	2 marks
Candidates who record ½ or more, but not all the 'core' key points.	1 mark
Candidates who record less than ½ the 'core' key points.	0 marks

Basic and accurate explanation of key points – 2 marks
Marks are determined by the number of key points which have a basic and accurate explanation.

If all key points have a basic and accurate explanation.	2 marks
If ½ or more but not all of the key points have a basic and accurate explanation.	1 mark
If less than ½ the key points have a basic and accurate explanation.	0 marks

Detailed and accurate explanation – 1 mark
Candidates who provide further accurate detail within the explanations will be awarded an additional mark. Extra detail means one additional point of explanation is provided for any one of the key points.

Brief 1
Develop an international dish suitable for sale in a restaurant

Brief 2
Develop a nutritious snack to be sold at an outdoor event

Brief 1
Key points
1. develop
2. (an) international
3. dish
4. suitable
5. (for) sale
6. (in a) restaurant

Brief 2
Key points
1. develop
2. (a) nutritious
3. snack
4. (to be) sold
5. (at an) outdoor
6. event

Example of basic accurate explanation of key points

Develop
- create or devise ideas for a new item

Example of further accurate detail in explanation of key points

Develop
- create or devise ideas for a new item
- make an item which is original or different to what is available at present

Total – 5 marks

1 : 2 Draw up appropriate criteria for a specification

Allows for range of solutions **1 mark**

Specification allows for a range of possible solutions which are relevant to the brief	1 mark
If a range of solutions is not possible	0 marks

Contains more detail than the brief **1 mark**

Specification points must be derived from the brief. When drawing up the criteria for the specification candidates should not just rewrite the key points – greater explanation is required.

Where specification points do not consistently contain more detail than the brief, candidates will be awarded marks accordingly.

Be written in measurable terms **2 marks**

Candidates must indicate how each specification point should be able to be measured by a valid method.

All specification points are measurable.	2 marks
½ or more, but not all specification points are measurable.	1 mark
Less than ½ the specification points are measurable.	0 marks

Note: Candidates are expected to produce a **minimum of four** specification points.

Total 4 marks

Step 1.2

Brief 1 – International dish		
Item must:		**Measured by:**
1	• be a food product	Component checklist/recipe analysis Interview with food technologist
2	• be made using ingredients from other countries/be of intercontinental origin	Interview with food technologist/restaurant manager/ chef Literary/Internet search
3	• take account of religious/moral/ethnic beliefs	Interview with food technologist/restaurant manager/ chef Questionnaire to target group/restaurant customers
4	• be suitable for target group/take account of allergies	Interview with food technologist/dietician/restaurant manager/chef/menu survey Nutritional analysis & check by food technologist/ dietician
5	• be suitable for the restaurant/menu	Interview with food technologist/restaurant manager/ chef
6	• be suitable for the season of year	Interview with food technologist/restaurant manager/ chef Literary/Internet search
7	• be different to other products already available/be original	Interview with food technologist/restaurant manager/ chef/menu survey
8	• be a single item/product/dish	Interview with food technologist/restaurant manager/ appropriate teacher/chef
9	• be comparable in cost to other similar dishes/ items on the menu	Costing exercise & price check/comparison Interview with food technologist/restaurant manager/ chef
10	• be cost effective/good value for money	Costing exercise & interview with food technologist/ restaurant manager/chef Costing exercise & interview/questionnaire target group
11	• be within the budget of the target group/ restaurant customers	Costing exercise & questionnaire to target group/ restaurant customers Costing exercise & interview with food technologist/ restaurant manager/chef
12	• be of an acceptable/satisfactory standard for sale	Interview with food technologist/restaurant manager/ chef Sensory testing with target group/restaurant customers Quality checklist & interview with food technologist/ restaurant manager/chef
13	• be an appropriate portion size/be easily portioned	Interview with food technologist/restaurant manager/ chef Sensory testing/questionnaire to target group/ restaurant customers
14	• be aesthetically pleasing to target group/ restaurant customers	Interview to target group/food technologist/restaurant manager/chef Interview/questionnaire/sensory evaluation with target group/restaurant manager/chef
15	• take account of the likes/dislikes of target group/restaurant customers	Interview/questionnaire/sensory evaluation with target group/restaurant customers Interview with food technologist/target group/restaurant customers/restaurant manager/chef
16	• be healthy/take account of current dietary targets	Interview with food technologist/dietician/restaurant manager/chef

Brief 1 – International dish		
Item must:		**Measured by:**
17	• be made using the facilities/resources/skills available in the restaurant	Interview with restaurant manager/chef Checklist of facilities/component checklist
18	• be made using the facilities/resources available to the candidate	Interview with food technologist Checklist of facilities/component checklist
19	• be within the capabilities of the candidate	Trial of prototype Time plan/checklist Interview with food technologist Skills analysis
20	• be made in the time available to the candidate/ restaurant	Timed trial of prototype & interview with food technologist/restaurant manager/chef Interview with food technologist/restaurant manager/ chef
21	• be prepared under hygienic/safe conditions/ safe to eat	Interview with food technologist/EHO/restaurant manager/chef Quality checklist & interview with food technologist/ EHO/restaurant manager/chef
22	• take account of allergies	Interview with food technologist/dietician
23	• be easy to prepare/cook/reheat/portion	Interview with food technologist/restaurant manager/ chef Skills analysis & check with food technologist/ restaurant manager/chef
24	• be suitable to be made in advance	Interview with food technologist/restaurant manager/ chef
25	• have an appropriate shelf life	Interview with food technologist/EHO/restaurant manager/chef
26	• be suitable for mass production	Interview with food technologist/restaurant manager/ chef

Note:

- The candidate **must** specify the term 'expert' if used.
- A food technologist could include a person working in food product development or a Home Economics teacher

NB

- **Specification Points**
  - **It must be checked that the specification points are different.**
  - **A candidate may use different wording to state the same point.**

- **Measured by**
  - **The candidate must specify the term 'expert' if used.**
  - **Method of measuring must be able to check/assess whether the specification point has been met.**

Brief 2 – Outdoor event		
Item must:		**Measured by:**
1	• be a food product	Component checklist/recipe analysis Interview with food technologist/retailer
2	• be a nutritious product/include nutritious ingredients	Interview with food technologist/retailer/dietician
3	• be a snack food	Interview with food technologist/retailer/dietician
4	• be suitable for an outdoor event	Interview with food technologist/retailer/event organiser
5	• be suitable for the season of year	Interview with food technologist/retailer/event organiser Literary/Internet search
6	• complement other products at the outdoor event	Interview with food technologist/retailer/event organiser
7	• be different from other dishes in the range/menu/be original	Interview with food technologist/retailer/event organiser Check against current product range/survey menus
8	• be a single item/product/dish	Questionnaire/interview to retailer/event organiser Interview with food technologist/retailer/event organiser
9	• be comparable in cost to other similar dishes at the outdoor event	Interview with food technologist/retailer/event organiser Costing exercise & check against current product price/interview with food technician/retailer/event organiser
10	• be cost effective/good value for money	Costing exercise & interview with food technologist/retailer/event organiser Costing exercise & interview/questionnaire target group/event customers
11	• be within the budget of the target group/ event customers	Costing exercise & interview/questionnaire to target group/event customers/event organiser
12	• be of an acceptable/satisfactory standard for sale	Interview with food technologist/retailer/event organiser Sensory testing with target group/event customers Quality checklist & interview with food technologist/retailer/event organiser
13	• be an appropriate portion size	Interview with food technologist/retailer/target group/event organiser Sensory testing/questionnaire to target group/ event customers
14	• be aesthetically pleasing to target group	Interview with food technologist/target group/ retailer/event customers Sensory testing/questionnaire to target group/ event customers/retailer
15	• take account of the likes/dislikes of the target group	Sensory evaluation with target group/event customers/retailer Interview with target group/event customers/ retailer
16	• take account of religious/moral/ethnic beliefs	Interview with food technologist/retailer/event organiser/event customers Questionnaire to target group/event customers
17	• be suitable for target group/take account of allergies	Interview with food technologist/dietician/event customers
18	• be healthy/take account of current dietary guidelines	Interview with food technologist/dietician/retailer/ event customers Component checklist & interview with food technologist/dietician/retailer/event organiser

Brief 2 – Outdoor event		
Item must:		**Measured by:**
19	• be made using the facilities/resources/ skills available at the food outlet/ outdoor event	Interview with food technologist/retailer/event organiser/chef Checklist of facilities/components checklist
20	• be made using the facilities/resources/ skills available to the candidate	Interview with food technologist Checklist of facilities/components checklist
21	• be within the capabilities of the candidate	Trial of prototype Time plan/checklist Interview with food technologist Skills analysis
22	• be made in the time available to the candidate/food outlet	Timed trial of prototype & interview with food technologist/restaurant manager/chef Interview with food technologist/retailer/chef
23	• be prepared under hygienic/safe conditions/safe to eat	Interview with food technologist/EHO/retailer/chef Quality checklist & interview with food technologist/EHO/retailer/chef
24	• be easy to prepare/cook/reheat	Interview with food technologist/retailer/chef Skills analysis & check with food technologist/ retailer/chef
25	• be suitable to be made in advance	Interview with food technologist/retailer/chef
26	• have an appropriate shelf life	Interview with food technologist/EHO/retailer/chef
27	• be suitable for mass production	Interview with food technologist/retailer/chef

Note:

- The candidate **must** specify the term 'expert' if used.
- A food technologist could include a person working in food product development or a Home Economics teacher

NB

- **Specification Points**
  - **It must be checked that the specification points are different**.
  - **A candidate may use different wording to state the same thing**.
- **Measured by**
  - **The candidate must specify the term 'expert' if used**.
  - **Method of measuring must be able to check/assess whether the specification point has been met**.

1 : 3 Devise an overall plan for investigations

List a range of relevant investigations – 2 marks

Candidates who provide a list of possible investigations which focus clearly on: • the key points of the project brief • the specification points • and have a clear aim/purpose	**2 marks**

Candidates who provide a list of investigations • which do not focus clearly on the key points and the specification will be awarded	**1 mark**

Obvious omissions from the list of investigations will result in marks not being awarded.

Identify techniques to be used – 2 marks

All techniques are correctly identified	**2 marks**
½ or more, but not all techniques are correctly identified	**1 mark**
Less than ½ of the techniques are correctly identified	**0 marks**

Techniques must be appropriate for the investigations and so allow the candidate the possibility of collecting relevant data/information.

Total – 4 marks

From the proposed list of investigations drawn up in 1 : 3 above, candidates should form a prioritised list of those investigations which they propose to undertake.

No marks are awarded at this stage but candidates are expected to focus on those investigations most relevant to the needs of the project brief. A number of investigations may be combined by using one technique. **No more than 3** depending on their nature, could be realistically carried out in the time available.

Candidates who intend to use a questionnaire as an investigation must issue 20 in order to gain valid results.

Candidates should complete this work on page 6 of the pro forma.

Step 1.3

Required Investigations:

1. **Restaurant**
2. **International Dish**

Brief 1 – International Dish		
Investigation		**Technique**
1	• Range of international ingredients/dishes	Interview with food technologist/restaurant manager/ chef Literary/Internet search Survey of food retail outlets
2	• Potential recipes using international ingredients	Literary/Internet/recipe search Interview with food technologist/restaurant manager/ chef
3	• Range of restaurants which may sell international dishes	Survey of potential restaurants Literary/Internet search
4	• Current range of international dishes on the menu	Survey of restaurants Interview with food technologist/restaurant manager/ chef
5	• Ideas for potential solutions	Survey of restaurants Literary/Internet/recipe search Interview with food technologist/restaurant manager/ chef/foreign national Trial of prototype Sensory testing with target group/restaurant customers
6	• Aesthetic appeal of potential solutions	Sensory testing/interview/questionnaire with target group/restaurant customers/restaurant manager/chef/ food technologist
7	• Appropriate portion size of potential solution	Interview with food technologist/dietician/chef Literary/Internet search
8	• Likes/dislikes of target group	Interview/questionnaire to target group/restaurant customers/restaurant manager/chef/food technologist
9	• Price range of similar dishes/dishes on the menu	Interview with target group/restaurant customers/ restaurant manager/chef/food technologist Survey of current product range
10	• Cost of potential ingredients/solutions	Costing exercise Survey food trailer
11	• Budget of restaurant/target group/amount target group is prepared to pay	Interview/questionnaire with target group/restaurant customers/restaurant manager/chef/food technologist
12	• Ways of applying current dietary advice/ healthy eating	Interview with food technologist/dietician/restaurant manager/chef Literary/Internet search
13	• Facilities/resources available in the restaurant/to the candidate	Interview with food technologist/restaurant manager/ chef Resource/equipment checklist
14	• Skills necessary for manufacture of the dish in the restaurant/by the candidate	Interview with food technologist/restaurant manager/ chef Skills audit & check with food technologist/restaurant manager/chef
15	• Time available for manufacture of the dish in the restaurant/by the candidate	Interview with food technologist/restaurant manager/ chef Timed trial of prototype & check with food technologist/restaurant manager/chef
16	• Hygiene/safety requirements for food production	Interview with food technologist/EHO/restaurant manager/chef Literary/Internet search

Brief 1 – International Dish		
Investigation		**Technique**
17	• Quality requirements of potential solutions	Interview with food technologist/restaurant manager/chef Manufacture of prototype(s) & trial Sensory testing/questionnaire/interview with target group/restaurant customers/restaurant manager/chef
18	• Shelf life of potential solutions	Interview with food technologist/EHO/restaurant manager/chef
19	• Appropriate portion size	Interview with food technologist/dietician/restaurant customers/restaurant manager/chef Literary/Internet/recipe search
20	• Suitability for mass production	Interview with food technologist/restaurant manager/ chef
21	• Influencing factors on final product eg allergies	Interview with food technologist/restaurant manager/ chef Interview/questionnaire with target group

Note:

- The candidate **must** specify the term 'expert' if used
- A food technologist could include a person working in textile product development or a Home Economics teacher

Required Investigations:

1. **Nutritious**
2. **Event**

Brief 2 – Outdoor Event		
Investigation		**Technique**
1	• Range of snack foods	Interview with food technologist/retailer/event organiser Literary/Internet search
2	• Range of potential nutritious ingredients/ product(s)	Interview with food technologist Literary/Internet search nutritional analysis software
3	• Nutritional needs of target group	Interview with food technologist/dietician Literary/Internet search
4	• Range of outdoor events	Interview with food technologist/retailer/event organiser Questionnaire to target group Literary/Internet search
5	• Suitable dishes for sale at an outdoor event	Interview with food technologist/retailer/event organiser Literary/Internet recipe search Survey/questionnaire to target group
6	• Current range of snacks available at outdoor events	Survey of food outlets at outdoor events Interview with food technologist/retailer/event organiser
7	• Ideas for potential solution	Survey of supermarket(s) Literary/Internet/recipe search Interview with food technologist/retailer/event organiser Manufacture of prototype(s) & check Sensory testing with target group/retailer/event organiser
8	• Appropriate portion size of potential solution	Interview with food technologist/retailer/dietician/ target group Literary/Internet search/recipe search
9	• Aesthetic appeal of potential solutions	Sensory testing with food technologist/target group/ event organiser/retailer
10	• Likes/dislikes of the target group	Interview/questionnaire to food technologist/target group/event organiser/retailer
11	• Price range of similar dishes on the market	Interview with food technologist/target group/event organiser/retailer Survey of snacks at outdoor events
12	• Cost of potential ingredients/solution(s)	Costing exercise
13	• Budget of target group/amount target group is prepared to pay	Interview/questionnaire with target group/supermarket customers/retailer
14	• Ways of improving the nutritional value of potential solutions	Interview with food technologist/dietician Literary/Internet search Nutritional analysis software
15	• Facilities/resources available to the retailer/at the outdoor event/to the candidate	Interview with food technologist/retailer/event organiser Resource/equipment checklist
16	• Skills necessary for manufacturing of the dish at the outdoor event/by the candidate	Interview with food technologist/retailer Skills audit & check with food technologist/retailer/ chef
17	• Time available for manufacturing of the dish at the outdoor event/by the candidate	Interview with food technologist/retailer Timed trial of prototype & check with food technologist/retailer

Brief 1 – Outdoor Event		
Investigation		**Technique**
18	• Hygiene/safety requirements for food production	Interview with food technologist/EHO/retailer
19	• Quality requirements of potential solutions	Interview with food technologist/retailer/event organiser Manufacture of prototype(s) & trial Sensory testing/questionnaire/interview with target group/customers/retailer
20	• Shelf life of potential solutions	Interview with food technologist/EHO/retailer
21	• Suitability for mass production	Interview with food technologist/retailer/events organiser
22	• Influencing factors on final product	Interview with food technologist/retailer/event organiser

Note:

- The candidate **must** specify the term 'expert' if used.
- A food technologist could include a person working in food product development or a Home Economics teacher

STEP 2 Total mark allocation – 15 marks

2 : 1 Implement the overall plan for investigations – 12 marks

The mark allocation for this area will be awarded holistically and will be based on candidates' performance in a series of investigations.

Candidates will be assessed on the results and conclusions from each investigation – see the marking criteria breakdown listed below.

Teachers/lecturers must ensure candidates present the results and conclusions of each investigation on pages 7, 8 and 9 only.

Candidates using computer software to produce results, eg bar charts or graphs, must ensure that these are presented only on the pages allocated for this work ie pages 7, 8 and 9.

Candidates who present the results and conclusions of each investigation on more than one A4 sheet of paper will be penalised.

Candidates' findings should
- be brief, concise and easy to interpret
- show a link to the aim and purpose of the investigation

Results must be derived from the investigations and be based on facts and evidence.
Conclusions must be based on **results obtained**.

Marking Criteria

- Holistic approach – marks must be briefly justified
- Results must be brief, concise and easy to interpret
- Results must show a link to the aim/purpose of the investigation
- Results must be derived from the investigations and based on facts and evidence
- Conclusions must be based on the results obtained

For **each** of **three** investigations:

The candidate has done as they intended	**1 mark**
The investigation contains brief, concise and easy to interpret results	**1 mark**
Results are based on fact and relevant to brief	**1 mark**
Conclusion is based on results/shows progression	**1 mark**

Total – 12 Marks

2 : 2 Derive a solution from the investigations – 3 marks

Generate one solution – 2 marks

Candidates derive **one solution** which must be

• relevant to the needs of the project brief	1 mark
• based on the results and conclusions reached in the investigations	1 mark

Brief description of the solution – 1 mark

The solution should be described so it is able to be **visualised**.

Various methods may be used – written details, sketches, diagrams, labelled diagrams, storyboards − to ensure clarity.

Total – 3 marks

Brief 1: International dish
Possible solutions

Any appropriate dish of international origin which is suitable for sale in a restaurant.

Brief 2: Outdoor event
Possible solutions

Any nutritious snack suitable for sale at an outdoor event.

STEP 3 Total mark allocation **16 marks**

3 : 1 Manufacture the chosen solution

Candidates must complete the plan **before** starting to manufacture the solution.

Candidates will be penalised if the plan is written **retrospectively**.

Identify and requisition resources **3 marks**

Candidates who identify and requisition **all** the main resources	3 marks
Candidates who requisition **most** of the main resources	2 marks
Candidates who only requisition **some** main resources	1 mark

Resources will depend on the chosen solution and may relate to textiles, packaging materials.

Identify and requisition equipment **3 marks**

Candidates who identify and requisition **all** the main equipment	3 marks
Candidates who identify and requisition **most** of the main equipment	2 marks
Candidates who identify and requisition **some** the main equipment	1 mark

Equipment will depend on the chosen solution and may relate to equipment used in food or fabric activities.

Draw up a sequence of work **3 marks**

Candidates should show logical thinking when drawing up the sequence of work to manufacture the solution, eg

- activities should be in the correct order to complete the solution
- longer activities started nearer the beginning of the sequence
- dovetailing of activities as appropriate.

Sequence of work is highly effective – **all** activities planned in correct order	3 marks
Sequence of work is effective – **most** activities planned in the correct order	2 marks
Sequence of work is satisfactory – **some** activities planned in the correct order, sufficient to allow the solution to be manufactured	1 mark

Deployment of time (time plan) **3 marks**

Candidates should make good use of time.

- Activities should be appropriately timed.
- Resources and equipment are used to make more effective use of time.

Highly effective time plan	3 marks
Effective time plan	2 marks
Satisfactory time plan	1 mark

Total – 12 marks

After completing the plan for manufacture, candidates should start to manufacture the solution.

Candidates should be encouraged to make notes on page 14 as they are carrying out the manufacturing process. Notes may be made on how manufacture is proceeding, any problems encountered and any changes/modifications made to the plan.

This work is not marked but may prove useful to candidates when completing Step 4 : 1 – Evaluation of the overall plan.

Photographic evidence

Photographic evidence of the candidates' work must be attached to the proforma. If this evidence is not attached, marking must stop, and a note of explanation added to the marking sheet. This project must then be marked for the attention of the PA.

Although no marks are awarded for this area, **evidence must be provided** of the candidates' solution.

When a centre has no photographic evidence attached, but has a note of explanation, continue marking the project but again refer this project to the PA.

Two photographs are required:

- one should provide evidence of the solution **during manufacture**.
- the other should provide evidence of the **completed** solution.

Although the quality of the photographs is not important, they **must** give an indication of the type of work being carried out and completed by the candidate.

3 : 2 Devise a test for the manufactured solution

Present one test with appropriate technique

Candidates should present **one** appropriate test with **one** appropriate technique.

Candidates who do not identify an appropriate test cannot be awarded any marks.

Technique must be appropriate to the test, allowing candidates to collect relevant data/ information.

Total – 1 mark

Briefs 1 & 2

Test	**Technique**
1. Examination by a specified expert eg food technologist/retailer/restaurant manager/event organiser/chef/ dietician/Environmental Health Officer	Interview/questionnaire with specified expert Sensory testing with specified expert
2. Examination by target group	Interview/questionnaire/survey with target group Sensory testing with target group Observational checklist
3. Costing exercise	Costing exercise confirmed by interview with specified expert, eg food technologist/ retailer/restaurant manager/event organiser/ chef/target group
4. Nutritional analysis	Nutritional analysis & interview with specified expert eg dietician/food technologist/chef
5. Time trial of dish/product/item	Time trial of dish and interview with specific expert

When the candidate uses the term ‘expert’, it must be specified eg a textile technologist. This could be included in either the test or the technique.

3 : 3 Implement the test for the manufactured solution

Brief, concise and easy to interpret results Results should be derived from the test and be based on facts and evidence. Test results should be presented in a format which is • brief • concise • easy to interpret.	**1 mark**

Factual and relevant results Results should be • derived from the investigation • based on facts and evidence.	**1 mark**

Brief conclusion based on results Candidates will be marked on their ability to draw meaningful and accurate conclusions from the results of the test. Conclusions must be • factually correct • based on the evidence provided by the results.	**1 mark**

Candidates must not offer personal opinions.

Total – 3 marks

STEP 4 Total mark allocation – 6 marks

4 : 1 Evaluate the chosen solution

Evaluation against the specification points – 3 marks

Candidates must rewrite the specification points briefly in the appropriate column.

Candidates must evaluate the solution against **each** specification point. The results of the testing can be used here.

Candidates will be penalised for lack of accuracy and detail within the explanation.

Page 17 of the pro forma should be used for the evaluation against the specification.

• All specification points are evaluated	3 marks
• ½ or more, but not all specification points are evaluated	2 marks
• Less than ½ the specification points are evaluated	1 mark
• No evaluation is provided	0 marks

Evaluation of the overall plan – 3 marks

Candidate will evaluate the overall plan (Steps 1 – 3 of the Technological Project).

The following criteria should be used in the evaluation.

- time
- resources
- skills and abilities.

No marks will be awarded to candidates who do not use these criteria in their review.

The evaluation, which may include adaptations/modifications, **must be based on evidence** which can be found within the candidate's Technological Project pro forma.

Candidates should be encouraged to give reasons for any statements they make in the evaluation.

Candidates may find it helpful to use some of the headings for Steps 1 – 3 in the pro forma for the evaluation.

Page 18 of the pro forma should be used for the evaluation of the overall plan.

Total – 6 marks

Technological Project Intermediate 2 Summary Mark Allocation

Step	Mark Breakdown	Allocation
1 . 1	**Identification of the key points with explanation** Identify the key points Key points plus basic and accurate explanation Key points plus detailed and accurate explanation	 **2 marks** **2 marks** **1 mark** **Total mark allocation 5**
1 . 2	**Draw up appropriate criteria for a specification** Allow for a range of solutions Contain more detail than the brief Be written in measurable terms	 **1 mark** **1 mark** **2 marks** **Total mark allocation 4**
1 . 3	**Devise an overall plan for investigations** List a range of relevant investigations Identify techniques to be used	 **2 marks** **2 marks** **Total mark allocation 4**
Total mark allocation for Step 1 – 13 marks		
2 . 1	**Implement the overall plan for investigations** Holistic approach	 **Total mark allocation 12**
2 . 2	**Derive a solution** From the investigation generate one solution Brief description of the solution	 **2 marks** **1 mark** **Total mark allocation 3**
Total mark allocation for Step 2 – 15 marks		

Step	Mark Breakdown	Allocation
3 . 1	**Manufacture the chosen solution**	
	Requisitions all main resources Requisitions most main resources Requisitions some main resources	**3 marks** **2 marks** **1 mark** **Total mark allocation 3**
	Requisitions all main equipment Requisitions most main equipment Requisitions some main equipment	**3 marks** **2 marks** **1 mark** **Total mark allocation 3**
	Highly effective sequence of work Effective sequence of work Satisfactory sequence of work	**3 marks** **2 marks** **1 mark** **Total mark allocation 3**
	Highly effective deployment of time (time plan) Effective deployment of time (time plan) Satisfactory deployment of time (time plan)	**3 marks** **2 marks** **1 mark** **Total mark allocation 3**
3 . 2	**Devise a test for the manufactured solution**	
	One test presented with appropriate technique identified	**1 mark** **Total mark allocation 1**
3 . 3	**Implement the test for the manufactured solution**	
	Brief, concise and easy to interpret results Results based on fact and relevant Brief conclusions based on results	**1 mark** **1 mark** **1 mark** **Total mark allocation 3**
Total mark allocation for Step 3 – 16 marks		
4 . 1	**Evaluate the chosen solution**	
	Evaluation of specification points	**3 marks** **Total mark allocation 3**
	Evaluation of overall plan against set criteria: time/resources/ skills and abilities	**3 marks** **Total mark allocation** 3
Total mark allocation for Step 4 – 6 marks		

Total 50 marks available

Appendix 1
Intermediate 2 Technological Project
Guidance on carrying out Investigations/Tests

Three investigations and one test must be carried out.

The aim, which should be linked to the candidate' specification, should be rewritten or cut and pasted from page 8 of the pro forma onto the top of the investigation page.

Questionnaire

- Minimum of 20 respondents.
- Minimum 5/8 relevant/valid questions linked to aim/specification to allow relevant data to be collected.
- Questions and all possible answers must be displayed.
- All responses must be displayed including nil responses.
- Given constraints of space, it is not necessary to display results as pie charts/graphs.
- Table format for displaying results of questionnaires can be space saving.

Survey

- Must identify the source(s) of information.
- Source of information must be relevant to investigation.
- The following sources could be used including the Internet, literary, shop, restaurant/café as a source of information.
- The source of information should be identified.
- The place selected should be related to the quality and quantity of the data available rather than the number of sources however more than one source should be used.
- Information should be displayed using appropriate headings, sub-divisions etc.

Interviews

- Carefully consider the suitability of the person interviewed. Must clearly identify their position in establishment/job title.
- Minimum 5/8 relevant/valid questions linked to aim/specification to allow relevant data to be collected.
- Open-ended questions should be used to allow more data to be collected from the interviewee.
- Questions should be carefully formatted to extract useful facts and avoid one word responses such as Yes/No.
- All questions and responses must be displayed.

Internet/Literary Search

- All sources must be clearly identified.
- Should be related to the quality/quantity/relevance of the data available rather than the number of sources.
- Graphics may be included where relevant.
- Data collected should be organised using appropriate headings/sub-divisions etc.
- Information should not be lifted 'en bloc' from websites. It is appropriate to summarise key points which are relevant to the aim/specification.

Costing

- Breakdown cost of all ingredients/components must be included.
- Details of quantities and unit costs must be included.
- Sources should be included where appropriate.
- Comparative costing should measure 'like for like'

NB Costing only proves cost of items/components. On its own it does not provide low/high cost, value for money, acceptability or price to target group.

Nutritional Analysis

- Sources must be shown.
- All nutrients relevant to the aim should be shown.
- Nutritional analysis of all ingredients must be included. (A 'total' for a dish is not acceptable).
- Sufficient data must be accessed in order to draw relevant conclusions.
- When used as a test the suitability of the results should be assessed by a suitable expert eg community dietician, food technologist etc.

Sensory Testing

- All potential solutions must be clearly described.
- Breakdown of results must be shown. Summary of results is not acceptable.
- Key must be provided.
- It is appropriate to ask questions to elicit potential improvements/modifications.
- It is suggested for sensory testing that a minimum of five people are used to assess the products.

[END OF MARKING INSTRUCTIONS]