

Mark Scheme (Results) Summer 2007

GCSE

GCSE Design and Technology: Food Technology Foundation Tier (1970/3970)

Marking Guidance

Give / State / Name

Normally a one or two word answer, at the very most a short sentence.

Describe

Normally, one or two sentences which form a description, making reference to more than one point. All points must be linked for a complete answer.

Explain

Normally, one or two sentences which form an explanation. This requires a clear or detailed account of something and includes a relevant justification, reason or example.

Evaluate

Normally one or two sentences where the quality, suitability or value of something is judged. This can include both positive and negative points, with each point normally requiring a relevant justification.

The mark scheme contains a range of possible answers for all questions. For some questions it is possible to provide a finite number of acceptable answers. However, in some instances it is not possible to provide every conceivable answer. In these instances objective guidance is provided.

For all answers candidates are not expected to give the exact wording contained in this mark scheme. However, to gain credit their answer must demonstrate the same meaning as detailed in the mark scheme.

It is the examiner's responsibility to apply their professional judgement in determining if what the candidate has written has the same meaning as the answer detailed in the mark scheme. For all answers the '*Key words*' have been written in bold text.

For describe and explain questions, candidates may give a different combination of the marking points listed in the mark scheme. In such instances candidates can be rewarded for the marking points provided that they are suitably linked. However, candidates cannot be rewarded for the same point repeated in two different combinations.

Examiners must mark in red pen using ticks and crosses in the body of the script.

Design & Technology: Food Technology (1970/2F)
Full Course Foundation Tier Mark Scheme

| Question Number | Question | | |
|------------------|---|---|-------------------------------|
| 1970_2F_Q01ai-ii | <p>Different tools and equipment are needed to prepare food in the home and in a factory.</p> <p>The table below shows different tools and equipment used to prepare foods.</p> <p>Complete the table by:</p> <p>(i) naming each tool or piece of equipment</p> <p>(ii) giving an example of a task that can be carried out using each tool or piece of equipment. Each example must be <u>different</u>.</p> | | |
| | <p>Answer</p> <p>Name: squeezer / juicer Task: squeezing/extracting/removing juice / getting juice out</p> <p>Name: pastry brush / food brush / glazing brush Task: brushing/glazing egg/milk/oil/fat/water/icing sugar / sealing pastry</p> <p>Name: bun tin / cake tin / pattie tin / Yorkshire pudding tin / tart tin Task: cooking/moulding/shaping cakes/pastries / putting cake mix in</p> <p>Name: microwave Task: cooking/defrosting/reheating/drying foods / warming</p> <p>Name: industrial cutter / drum cutter / roller cutter Task: cutting/shaping dough/biscuits/pastry</p> | <p>Part Mark</p> <p>1 1 1 1 1 1 1 1</p> | <p>Total Mark</p> <p>(10)</p> |

| Question Number | Question | | |
|-----------------|--|-----------|------------|
| 1970_2F_Q01bi | One way a food processor can be used is for rubbing in fat into flour. Give <u>three</u> other ways a food processor can be used to prepare foods. | | |
| | Answer | Part Mark | Total Mark |
| | Three ways given: <ul style="list-style-type: none">• whisking/whipping• chopping/cutting• grating• shredding• blending/pureeing/pulping/liquidizing• mixing/creaming/beating margarine and sugar• mashing• chipping• slicing• kneading | 3x1 | (3) |

| Question Number | Question | | |
|-----------------|---|-----|-----|
| 1970_2F_Q01bii | <p>Electrical safety rules must be followed when using a food processor.</p> <p>Give <u>two</u> other safety rules to follow when using a food processor.</p> | | |
| | <p>Answer</p> <p>Two rules given:</p> <ul style="list-style-type: none"> do not overfill/don't put too much in assembled properly/securely / put lid on right use tabs/holes/flat bits on blades/attachments wash blades/attachments with a brush wash at high temperatures/wash in dishwasher to remove bacteria use tube to add ingredients/add through the funnel/tube don't put hands in when it is working don't touch with wet hands / don't use near water | 2x1 | (2) |
| 1970_2F_Q01ci | <p>When food products are manufactured in volume, different quantities may need to be made.</p> <p>Biscuits are made in batches.</p> <p>Give <u>three</u> reasons why biscuits are made in batches.</p> | | |
| | <p>Answer</p> <p>Three reasons given:</p> <ul style="list-style-type: none"> high demand / popular product / sell well / lots bought/sold reasonable shelf life / store well cheaper different varieties produced / can get other flavours/styles seasonal variations needed / special occasions | 3x1 | (3) |

| Question Number | Question | | |
|-----------------|--|------------------|------------|
| 1970_2F_Q01cii | Loaves of white sliced bread are made in high volume. Give <u>two</u> reasons why a loaf of white sliced bread is made in high volume. | | |
| | Answer | Part Mark | Total Mark |
| | Two reasons given: <ul style="list-style-type: none"> • high demand / large amounts are needed / popular product • staple food • used for energy • reduces costs to manufacturer/consumer • versatile | 2x1 | (2) |
| 1970_2F_Q01d | Computer Aided Manufacture (CAM) systems are used in industry to help make each product the same. Give <u>two</u> stages when CAM systems help to make each loaf of bread the same. | | |
| | Answer | Part Mark | Total Mark |
| | Two stages given: <ul style="list-style-type: none"> • weighing/measuring ingredients/portion/finished product • regulating/setting the right cooking temperature • timing of cooking/proving • slicing/wrapping of finished bread | 2x1 | (2) |
| | | (Total 22 marks) | |

| Question Number | Question | | |
|-----------------|---|-----------|------------|
| 1970_2F_Q02ai | Wheat flour is one of the basic ingredients used when cooking food products. Name <u>two</u> different types of wheat flour that are used in cooking. | | |
| | Answer | Part Mark | Total Mark |
| | Two flours given: <ul style="list-style-type: none"> • plain • self-raising • wholemeal/brown • wheatmeal • granary | 2x1 | (2) |
| Question Number | Question | | |
| 1970_2F_Q02aii | Describe <u>one</u> nutritional use of wheat flour. | | |
| | Answer | Part Mark | Total Mark |
| | One nutritional use described: <ul style="list-style-type: none"> • carbohydrate/starch which is used for energy • fibre/NSP which is used for keeping bowels moving/prevent bowel cancer/diverticulitis / make you go to the toilet • calcium for increased bone/teeth strength /prevent osteoporosis • iron for generating red blood cells/haemoglobin / preventing anaemia • protein which is used for growth/repair of cells / mending your skin • vitamin D aids the absorption of calcium | 2x1 | (2) |

| Question Number | Question | | |
|-----------------|---|-----------|------------|
| 1970_2F_Q02bi | A cheese sauce is being developed for a new food product. Describe how wheat flour helps to thicken the cheese sauce. | | |
| | Answer | Part Mark | Total Mark |
| | Thickening of flour described: | | |
| | <ul style="list-style-type: none"> the flour absorbs water / gelatinises / swells/bursts the starch grains to thicken the sauce when heated (only answer) | 2x1 | (2) |
| Question Number | Question | | |
| 1970_2F_Q02bii | Give <u>three</u> natural ways in which flavour could be added to the cheese sauce. | | |
| | Answer | Part Mark | Total Mark |
| | Three ways given: | | |
| | <ul style="list-style-type: none"> salt pepper mustard herbs spices onions/garlic/leeks mushrooms peppers stilton/parmesan/red Leicester/blue cheese/goat cheese ham/bacon/salami/pepperoni/pastrami tuna/salmon/smoked fish | 3x1 | (3) |

| Question Number | Question | | |
|-----------------|--|-----------|------------|
| 1970_2F_Q02biii | <p>Buying extra ingredients adds to the cost of making a food product.</p> <p>Explain <u>one</u> other way in which using extra ingredients increases the costs.</p> | | |
| | <p>Answer</p> <p>One way explained:</p> <ul style="list-style-type: none"> increased energy costs because it will take longer to make / more things to do in the recipe specialist/new equipment may have to be bought because of the different processes / extra things done increased wages bill/more staff because more hand preparation / changes to manufacturing process increased transport costs because more ingredients have to be delivered | Part Mark | Total Mark |
| | | 2x1 | (2) |
| Question Number | Question | | |
| 1970_2F_Q02c | <p>The new cheese sauce must also be suitable for vegetarians.</p> <p>Explain <u>one</u> way in which the cheese sauce can be made suitable for vegetarians.</p> | | |
| | <p>Answer</p> <p>One way explained:</p> <ul style="list-style-type: none"> do not use rennet /use natural enzymes/chymosin to set the cheese use soya milk because it is manufactured from vegetable sources do not use meat/fish because it comes from dead animals use cheese flavouring because it doesn't come from animals | Part Mark | Total Mark |
| | | 2x1 | (2) |

| Question Number | Question | | |
|-----------------|---|-----------|------------|
| 1970_2F_Q02di | When designing new food products, the effects of packaging on the environment must be considered. Give <u>three</u> advantages to the environment of using paper in food packaging. | | |
| | Answer | Part Mark | Total Mark |
| | <p>Three advantages given:</p> <ul style="list-style-type: none"> • biodegradable/rots down • recyclable • can be made from recycled papers • renewable resource • does not fill up landfill sites | 3x1 | (3) |
| Question Number | Question | | |
| 1970_2F_Q02dii | Give <u>two</u> disadvantages to the environment of using metals and foils in food packaging. | | |
| | Answer | Part Mark | Total Mark |
| | <p>Two disadvantages given:</p> <ul style="list-style-type: none"> • high energy use in manufacture • non-renewable resource • expensive to recycle • slow to biodegrade • fills up landfill sites | 2x1 | (2) |

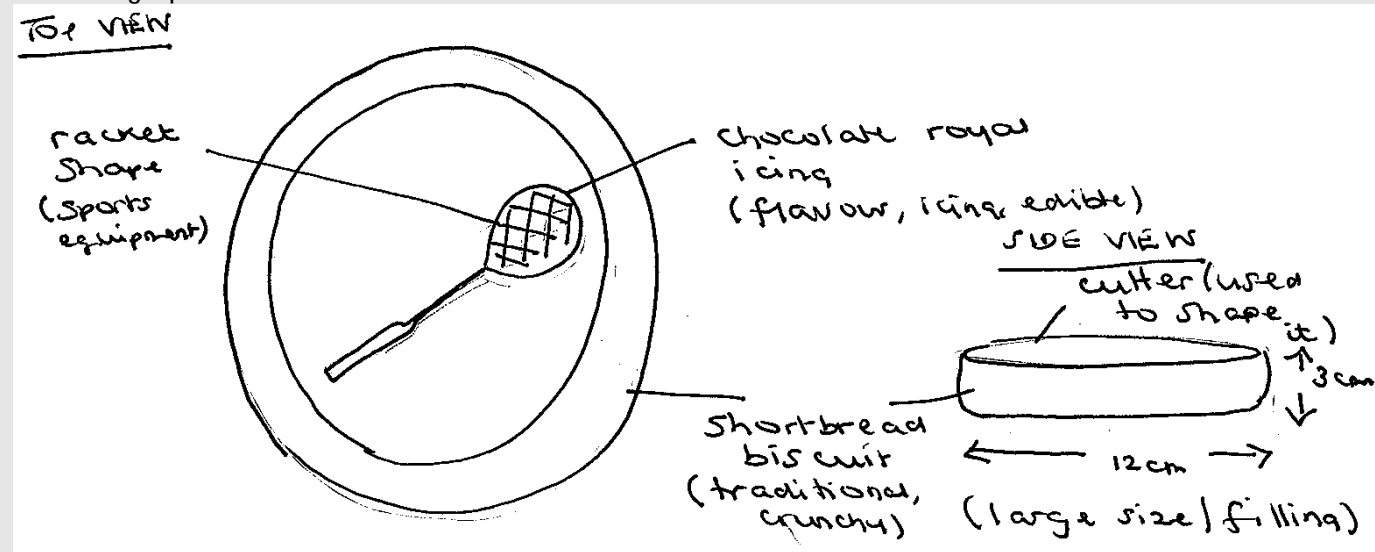
| Question Number | Question | | |
|-----------------|--|--------------------|------------------|
| 1970_2F_Q02diii | Explain <u>two</u> ways in which reducing food packaging would help the consumer. | | |
| | Answer | Part Mark | Total Mark |
| | <p>Two ways explained:</p> <ul style="list-style-type: none"> • fewer layers would reduce the weight/make it easier to unwrap • the finished product would be easier to store because it would take up less room • the cost would be reduced/would be cheaper because there would be fewer materials to buy • less to throw away/waste so consumers would feel they were helping the environment/being greener/reducing carbon footprint | <p>2x1 2x1</p> | <p>(4)</p> |
| | | | (Total 22 marks) |

| Question Number | Question | Part Mark | Total Mark | | | | | | |
|---|--|--|------------|---|--------|---|---------|-------------------|--|
| 1970_2F_Q03a | <p>A manufacturer wants to support the 2012 Olympic fundraising by developing a range of iced biscuits to sell at sports events.</p> <p>The specification for the biscuit is that it must:</p> <ul style="list-style-type: none"> • have a biscuit base that is easy to shape • have an icing that is flavoured • have a design that shows a sporting theme and uses edible decoration • provide a filling snack with a good texture <p>In the spaces opposite, use sketches and, where necessary, brief notes to show <u>two different</u> design ideas for the biscuits which meet this specification.</p> | | | | | | | | |
| | <p>Answer</p> <p>Each point of specification has two marking points.</p> <p>1 mark should be awarded for evidence of each point of specification resolved in the design</p> <table> <tr> <td>For each point with both elements viably satisfied</td> <td>2 marks</td> </tr> <tr> <td>For each point with only one element viably satisfied</td> <td>1 mark</td> </tr> <tr> <td>Where the answer does not viably answer a specification point</td> <td>0 marks</td> </tr> </table> <p>Candidates may answer any specification point in either graphical form or by annotation.</p> <p>No marks are awarded for quality of communication.</p> <p>Design Idea 1:</p> <p>Specification point 1: Have a biscuit base that is easy to shape</p> <ul style="list-style-type: none"> • Evidence that it has a biscuit base, eg Shortbread/ginger/flapjack/oat/cookie/melting moments • Evidence that it is easy to shape, eg Moulded/cut/piped/extruded/set in a tin to shape | For each point with both elements viably satisfied | 2 marks | For each point with only one element viably satisfied | 1 mark | Where the answer does not viably answer a specification point | 0 marks | <p>1</p> <p>1</p> | |
| For each point with both elements viably satisfied | 2 marks | | | | | | | | |
| For each point with only one element viably satisfied | 1 mark | | | | | | | | |
| Where the answer does not viably answer a specification point | 0 marks | | | | | | | | |

| | | |
|--|---|--|
| <p>Specification point 2: Have an icing that is flavoured</p> <ul style="list-style-type: none"> Evidence that it has an icing eg Glace/fondant/roll out/buttercream/royal icing Evidence that it has a flavour eg Strawberry/raspberry/mint/chocolate/coffee and other suitable flavours. | 1 | |
| <p>Specification point 3: Have a design that shows a sporting theme and uses edible decorations</p> <ul style="list-style-type: none"> Evidence that it shows a sporting theme eg Sport/Olympic logo used/sport equipment Evidence that the decoration can be eaten eg Edible decorations/edible icing print/rice paper or other suitable materials | 1 | |
| <p>Specification point 4: Provide a filling snack with a good texture</p> <ul style="list-style-type: none"> Evidence of how it is filling eg Labelling of ingredients that fill you up (fat/carbohydrate)/size of product/layered to make it more filling Evidence of a good texture eg Reference to part that provides a smooth/crunchy/crisp texture | 1 | |

(8)

Possible graphical solution:



Design Idea 2

To score a mark for Design Idea 2, each specification point must be resolved again in the second design idea but the second design idea must be **technically/conceptually different in design and construction** from the first and not simply a variation on a theme to score the mark.

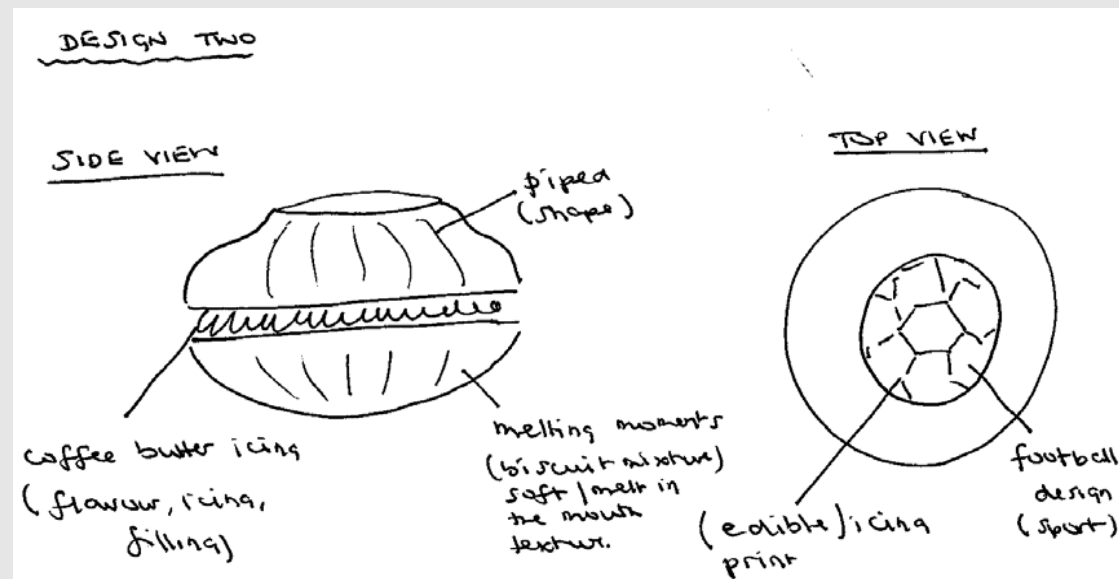
Use exactly the same criteria as Design Idea 1 to mark Design Idea 2:

- One different biscuit base named
- One different shaping method named
- One different icing named
- One different flavouring named
- One different sporting theme shown
- One different edible decoration named
- One different method of being filling named
- One different texture named

1
1
1
1
1
1
1
1

(8)

Possible graphical solution:



| Question Number | Question | | |
|-----------------|--|--|---|
| 1970_2F_Q03b | <p>Three of the original specification points are repeated below.</p> <p>Evaluate how one of your design ideas succeeds or fails to meet each of these specification points.</p> <p>(i) The biscuit must have a biscuit base that is easy to shape. (ii) The biscuit must have a design that shows a sporting theme and uses edible decoration. (iii) The biscuit must provide a filling snack with a good texture.</p> | | |
| | <p>Answer</p> <p>Each point clearly evaluated.</p> <p>If a candidate has indicated Design Idea 1 and then evaluates Design Idea 2 for all or part of (i), (ii) & (iii) then the idea in greater evidence should be marked.</p> <p>The evaluation of the design must contain reference to either positive or negative aspects not just simply a description of the design.</p> <p>Award 1 mark for correct evaluation / justification relating to each design feature and how it succeeds or fails.</p> <p>Repetition of original spec scores 0.</p> <p>Marks may be awarded for two justifications of one specification point.</p> <p>(i) Evaluation of: Must have a biscuit base that is easy to shape Positive and negative reasons relating to:</p> <ul style="list-style-type: none"> • Reference made to biscuit base • Reference made to how the biscuit is easy to shape <p>(ii) Evaluation of: Must have a design that shows a sporting theme and uses edible decorations Positive and negative reasons relating to:</p> <ul style="list-style-type: none"> • Reference made to how the design is linked to sport • Reference made to how the decoration is edible | <p>Part Mark</p> <p>2x1</p> <p>2x1</p> | <p>Total Mark</p> <p>(2)</p> <p>(2)</p> |

(iii) Evaluation of: **Must provide a filling snack and have a good texture**

2x1

(2)

Positive and negative reasons relating to:

- Reference made to how the snack is filling
- Reference made to how the snack has texture

(Total 22 marks)

Question Number

Question

1970_2F_Q04a

The drawing below shows a vegetarian pasty that is sold pre-packages in small shops and garage forecourts.

Two specification points for the vegetarian pasty are that it must be:

- suitable to eat hot or cold
- easy to eat while being held in one hand

Under each of the following headings, give one more point that should be included in the specification for the vegetarian pasty.

For each point, give one reason why it should be included.

Answer

Part Mark

Total Mark

Three specification points given:

3x1

Three reasons given:

3x1

It is essential that the point and reason both fully relate to market, environment and quality.

(Do not accept repetition of the specification points given)

Market

Point: to provide a snack product

Reason: to fill you up between meals

Point: to provide a product for packed lunches/work lunches

Reason: a compact product/balanced nutrients/quick meal

Point: to provide for vegetarians

Reason: to meet dietary/health choices / religious needs / extend the market

Point: to provide a healthier snack meal
Reason: to reduce consumption of meat/fat

Point: to appeal to a wide market
Reason: suitable for meat eaters and vegetarians

Point: to have a reasonable shelf life
Reason: to allow retailer/consumer to store it

Environment

Point: no GM ingredients
Reason: may prove to be harmful to the environment/consumer

Point: use of organic vegetables
Reason: so that natural/no harmful pesticides/herbicides/fertilizers have been used

Point: to be able to recycle packaging/have biodegradable packaging
Reason: to protect the environment/reduce landfill/save resources/prevent litter/be greener/reduce carbon footprint

Quality

Point: well shaped/good shape
Reason: to look attractive to consumer / make people want to buy it / stand out from the competition

Point: fully sealed
Reason: to prevent the filling from leaking out / prevent contamination

Point: golden colour
Reason: to attract the customer/make it look attractive

Point: even sized pieces of vegetable
Reason: to keep the shape/so they don't poke out/break the pastry

Some flexibility should be given as some points may cross over descriptions.

| Question Number | Question | | |
|-----------------|---|-----|-----|
| 1970_2F_Q04b | <p>The filling in the vegetarian pastry contains a sauce and mixed vegetables. One reason why the filling contains a sauce is to hold the vegetables together.</p> <p>Give <u>two</u> other reasons for using a sauce.</p> | | |
| | <p>Answer</p> <p>Two reasons given:</p> <ul style="list-style-type: none"> • adds moisture / makes it wetter • gives protein • gives calcium • improves nutrition / better food value / better for you • adds variety to the texture • helps maintain texture when heated / heats well / won't dry out when heated • add flavour | 2x1 | (2) |
| Question Number | Question | | |
| 1970_2F_Q04c | <p>The filling is put onto the pastry using a Computer Aided Manufacture (CAM) machine.</p> <p>Give <u>two</u> advantages of using a CAM machine to the put the filling onto the pastry.</p> | | |
| | <p>Answer</p> <p>Two advantages given:</p> <ul style="list-style-type: none"> • accurate measurements of filling / the right amount of filling / correct weight of filling • accurate placement of filling / putting the filling in the right place / filling in the middle • quicker / fill many at one time / lots done at once • more cost effective/cheaper than doing it by hand / less staff / less wages • safer than doing it by hand / less likely to be contaminated / more hygienic | 2x1 | (2) |

| Question Number | Question | |
|-----------------|---|---|
| 1970_2F_Q04d | <p>The vegetarian pasty is made using shortcrust pastry.</p> <p>Give <u>two</u> properties of shortcrust pastry that makes it suitable for the pasty.</p> <p>For each property give <u>one</u> reasons why shortcrust pastry is suitable.</p> | |
| | <p>Answer</p> <p>Two properties given:</p> <p>Property: crisp/hard/crunchy/strong Reason: makes it firm / holds the filling</p> <p>Property: easy to shape/roll/cut Reason: stretchy/elastic</p> <p>Property: holds shape Reason: gluten sets the pastry</p> <p>Property: authentic taste/texture Reason: traditional</p> <p>Property: doesn't crumble easily Reason: easy to eat / transport/carry</p> | <p>Part Mark</p> <p>Total Mark</p> <p>2x1</p> <p>2x1</p> <p>(4)</p> |

| Question Number | Question | | |
|-----------------|---|-----------|------------|
| 1970_2F_Q04e | The vegetarian pasty is sold in a green coloured package. Explain <u>one</u> reason why the package is green coloured. | | |
| | Answer | Part Mark | Total Mark |
| | One reason explained: | | |
| | <ul style="list-style-type: none"> stands out / attractive to consumers because it suggests vegetables identifies a vegetarian product because it is the standard colour used / suggests vegetables | 2x1 | (2) |
| Question Number | Question | | |
| 1970_2F_Q04f | The vegetarian pasty has a crimped edge. Explain <u>one</u> reason why the edge is crimped. | | |
| | Answer | Part Mark | Total Mark |
| | One reason explained: | | |
| | <ul style="list-style-type: none"> filling cannot escape because the pastry edges overlap/pinch together easier/nicer to hold because it provides a thicker/stronger area gives an attractive/authentic finish because the edge is shaped/decorative | 2x1 | (2) |

| Question Number | Question | Part Mark | Total Mark |
|------------------|--|---|-----------------------|
| 1970_2F_Q04gi-ii | <p>Two purposes of the vegetarian pasty are that it must:</p> <ul style="list-style-type: none"> • be suitable to eat hot or cold • be easy to eat while being held in one hand <p>Explain, under the following headings, how the vegetarian pasty achieves these purposes.</p> | | |
| | <p>Answer</p> <p>One explanation given:</p> <p>(i) Suitable to eat hot or cold:</p> <ul style="list-style-type: none"> • no risk to health as not a high risk food / contains no meat / it is fully cooked / the bacteria have been destroyed during cooking • easy to heat if required in a microwave/oven • pre-cooked so it will not affect organoleptic/sensory/taste qualities / safe to eat <p>(ii) Easy to eat while being held in one hand:</p> <ul style="list-style-type: none"> • fits into the hand / easy to hold because of the dimensions/shape / small size • easy to hold because it is not greasy • does not easily flake/crumble because shortcrust pastry used • gluten in the flour sets / the pastry goes hard when cooked to make a solid/crisp outer shell / hold the filling | <p>2x1</p> <p>(2)</p> <p>2x1</p> <p>(2)</p> | <p>(2)</p> <p>(2)</p> |
| | | (Total 22 marks) | |
| | | (TOTAL FOR PAPER : 88 MARKS) | |

Design & Technology: Food Technology (3970/2F)
Short Course Foundation Tier Mark Scheme

| Question Number | Question | | |
|------------------|---|---|------------------------------|
| 3970_2F_Q01ai-ii | <p>Different tools and equipment are needed to prepare food in the home and in a factory.</p> <p>The table below shows different tools and equipment used to prepare foods.</p> <p>Complete the table by:</p> <p>(iii) naming each tool or piece of equipment</p> <p>(iv) giving an example of a task that can be carried out using each tool or piece of equipment. Each example must be <u>different</u>.</p> | | |
| | <p>Answer</p> <p>Name: squeezer / juicer Task: squeezing/extracting/removing juice / getting juice out</p> <p>Name: pastry brush / food brush / glazing brush Task: brushing/glazing egg/milk/oil/fat/water/icing sugar / sealing pastry</p> <p>Name: bun tin / cake tin / pattie tin / Yorkshire pudding tin / tart tin Task: cooking/moulding/shaping cakes/pastries / putting cake mix in</p> | <p>Part Mark</p> <p>1 1 1 1</p> | <p>Total Mark</p> <p>(6)</p> |
| Question Number | Question | | |
| 3970_2F_Q01bi | <p>One way a food processor can be used is for rubbing in fat into flour.</p> <p>Give <u>three</u> other ways a food processor can be used to prepare foods.</p> | | |
| | <p>Answer</p> <p>Three ways given:</p> <ul style="list-style-type: none"> whisking/whipping | <p>Part Mark</p> | <p>Total Mark</p> |

- chopping/cutting
- grating
- shredding
- blending/pureeing/pulping/liquidizing
- mixing/creaming/beating margarine and sugar
- mashing
- chipping
- slicing
- kneading

3x1

(3)

Question Number

Question

3970_2F_Q01bii

Electrical safety rules must be followed when using a food processor.

Give two other safety rules to follow when using a food processor.

Answer

Part Mark

Total Mark

Two rules given:

- do not overfill/don't put too much in
- assembled properly/securely / put lid on right
- use tabs/holes/flat bits on blades/attachments
- wash blades/attachments with a brush
- wash at high temperatures/wash in dishwasher to remove bacteria
- use tube to add ingredients/add through the funnel/tube
- don't put hands in when it is working
- don't touch with wet hands / don't use near water

2x1

(2)

(Total 11 marks)

| Question Number | Question | | |
|-----------------|--|-----------|------------|
| 3970_2F_Q02ai | Wheat flour is one of the basic ingredients used when cooking food products. Name <u>two</u> different types of wheat flour that are used in cooking. | | |
| | Answer | Part Mark | Total Mark |
| | Two flours given: <ul style="list-style-type: none"> • plain • self-raising • wholemeal/brown • wheatmeal • granary | 2x1 | (2) |
| Question Number | Question | | |
| 3970_2F_Q02aii | Describe <u>one</u> nutritional use of wheat flour. | | |
| | Answer | Part Mark | Total Mark |
| | One nutritional use described: <ul style="list-style-type: none"> • carbohydrate/starch which is used for energy • fibre/NSP which is used for keeping bowels moving / prevent bowel cancer/diverticulitis / make you go to the toilet • calcium for increased bone/teeth strength / prevent osteoporosis • iron for generating red blood cells/haemoglobin / preventing anaemia • protein which is used for growth/repair of cells / mending your skin • vitamin D aids the absorption of calcium | 2x1 | (2) |

| Question Number | Question | | |
|-----------------|--|-----------|------------|
| 3970_2F_Q02bi | <p>A cheese sauce is being developed for a new food product.</p> <p>Describe how wheat flour helps to thicken the cheese sauce.</p> | | |
| | <p>Answer</p> <p>Thickening of flour described:</p> <ul style="list-style-type: none"> the flour absorbs water / gelatinises / swells/bursts the starch grains to thicken the sauce when heated (only answer) | Part Mark | Total Mark |
| | | 2x1 | (2) |
| Question Number | Question | | |
| 3970_2F_Q02bii | <p>Give <u>three</u> natural ways in which flavour could be added to the cheese sauce.</p> | | |
| | <p>Answer</p> <p>Three ways given:</p> <ul style="list-style-type: none"> salt pepper mustard herbs spices onions/garlic/leeks mushrooms peppers stilton/parmesan/red Leicester/blue cheese/goat cheese ham/bacon/salami/pepperoni/pastrami tuna/salmon/smoked fish | Part Mark | Total Mark |
| | | 3x1 | (3) |

| Question Number | Question | Part Mark | Total Mark |
|-----------------|---|------------------|------------|
| 3970_2F_Q02biii | <p>Buying extra ingredients adds to the cost of making a food product.</p> <p>Explain <u>one</u> other way in which using extra ingredients increases the costs.</p> | | |
| | <p>Answer</p> <p>One way explained:</p> <ul style="list-style-type: none"> increased energy costs because it will take longer to make / more things to do in the recipe specialist/new equipment may have to be bought because of the different processes / extra things done increased wages bill/more staff because more hand preparation / changes to manufacturing process increased transport costs because more ingredients have to be delivered | 2x1 | (2) |
| | | (Total 11 marks) | |
| Question Number | Question | Part Mark | Total Mark |
| 3970_2F_Q03a | <p>The drawing below shows a vegetarian pasty that is sold pre-packages in small shops and garage forecourts.</p> <p>Two specification points for the vegetarian pasty are that it must be:</p> <ul style="list-style-type: none"> suitable to eat hot or cold easy to eat while being held in one hand <p>Under each of the following headings, give <u>one</u> more point that should be included in the specification for the vegetarian pasty.</p> <p>For each point, give <u>one</u> reason why it should be included.</p> | | |
| | <p>Answer</p> <p>Three specification points given:</p> <p>Three reasons given:</p> <p>It is essential that the point and reason both fully relate to market, environment and quality. <i>(Do not accept repetition of the specification points given)</i></p> | 3x1 3x1 | |

Market

Point: to provide a snack product

Reason: to fill you up between meals

Point: to provide a product for packed lunches/work lunches

Reason: a compact product/balanced nutrients/quick meal

Point: to provide for vegetarians

Reason: to meet dietary/health choices / religious needs / extend the market

Point: to provide a healthier snack meal

Reason: to reduce consumption of meat/fat

Point: to appeal to a wide market

Reason: suitable for meat eaters and vegetarians

Point: to have a reasonable shelf life

Reason: to allow retailer/consumer to store it

Environment

Point: no GM ingredients

Reason: may prove to be harmful to the environment/consumer

Point: use of organic vegetables

Reason: so that natural/no harmful pesticides/herbicides/fertilizers have been used

Point: to be able to recycle packaging/have biodegradable packaging

Reason: to protect the environment/reduce landfill/save resources/prevent litter/be greener/reduce carbon footprint

Quality

Point: well shaped/good shape

Reason: to look attractive to consumer / make people want to buy it / stand out from the competition

Point: fully sealed
Reason: to prevent the filling from leaking out / prevent contamination

Point: golden colour
Reason: to attract the customer/make it look attractive

Point: even sized pieces of vegetable
Reason: to keep the shape/so they don't poke out/break the pastry

Some flexibility should be given as some points may cross over descriptions.

| Question Number | Question | Part Mark | Total Mark |
|-----------------|---|-----------|------------|
| 3970_2F_Q03b | <p>The filling in the vegetarian pasty contains a sauce and mixed vegetables. One reason why the filling contains a sauce is to hold the vegetables together.</p> <p>Give <u>two</u> other reasons for using a sauce.</p> | | |
| | <p>Answer</p> <p>Two reasons given:</p> <ul style="list-style-type: none">• adds moisture / makes it wetter• gives protein• gives calcium• improves nutrition / better food value / better for you• adds variety to the texture• helps maintain texture when heated / heats well / won't dry out when heated• add flavour | 2x1 | (2) |

| Question Number | Question | |
|-----------------|---|------------------------------|
| 3970_2F_Q03c | <p>The filling is put onto the pastry using a Computer Aided Manufacture (CAM) machine.</p> <p>Give <u>two</u> advantages of using a CAM machine to the put the filling onto the pastry.</p> | |
| | Answer | Part Mark Total Mark |
| | <p>Two advantages given:</p> <ul style="list-style-type: none">• accurate measurements of filling / the right amount of filling / correct weight of filling• accurate placement of filling / putting the filling in the right place / filling in the middle• quicker / fill many at one time / lots done at once• more cost effective/cheaper than doing it by hand / less staff / less wages• safer than doing it by hand / less likely to be contaminated / more hygienic | 2x1 (2) |

| Question Number | Question | |
|-----------------|---|---|
| 3970_2F_Q03d | <p>The vegetarian pasty is made using shortcrust pastry.</p> <p>Give <u>two</u> properties of shortcrust pastry that makes it suitable for the pasty. For each property give <u>one</u> reasons why shortcrust pastry is suitable.</p> | |
| | <p>Answer</p> <p>Two properties given:</p> <p>Property: crisp/hard/crunchy/strong Reason: makes it firm / holds the filling</p> <p>Property: easy to shape/roll/cut Reason: stretchy/elastic</p> <p>Property: holds shape Reason: gluten sets the pastry</p> <p>Property: authentic taste/texture Reason: traditional</p> <p>Property: doesn't crumble easily Reason: easy to eat / transport/carry</p> | <p>Part Mark</p> <p>Total Mark</p> <p>2x1</p> <p>2x1</p> <p>(4)</p> |

| Question Number | Question | | |
|-----------------|---|-----------|------------|
| 3970_2F_Q03e | The vegetarian pasty is sold in a green coloured package. Explain <u>one</u> reason why the package is green coloured. | | |
| | Answer | Part Mark | Total Mark |
| | One reason explained: | | |
| | <ul style="list-style-type: none"> stands out / attractive to consumers because it suggests vegetables identifies a vegetarian product because it is the standard colour used / suggests vegetables | 2x1 | (2) |
| Question Number | Question | | |
| 3970_2F_Q03f | The vegetarian pasty has a crimped edge. Explain <u>one</u> reason why the edge is crimped. | | |
| | Answer | Part Mark | Total Mark |
| | One reason explained: | | |
| | <ul style="list-style-type: none"> filling cannot escape because the pastry edges overlap/pinch together easier/nicer to hold because it provides a thicker/stronger area gives an attractive/authentic finish because the edge is shaped/decorative | 2x1 | (2) |

| Question Number | Question | | |
|-----------------|--|--|---|
| 3970_2F_Q03g | <p>Two purposes of the vegetarian pasty are that it must:</p> <ul style="list-style-type: none"> • be suitable to eat hot or cold • be easy to eat while being held in one hand <p>Explain, under the following headings, how the vegetarian pasty achieves these purposes.</p> | | |
| | <p>Answer</p> <p>One explanation given:</p> <p>(i) Suitable to eat hot or cold:</p> <ul style="list-style-type: none"> • no risk to health as not a high risk food / contains no meat / it is fully cooked / the bacteria have been destroyed during cooking • easy to heat if required in a microwave/oven • pre-cooked so it will not affect organoleptic/sensory/taste qualities / safe to eat <p>(ii) Easy to eat while being held in one hand:</p> <ul style="list-style-type: none"> • fits into the hand / easy to hold because of the dimensions/shape / small size • easy to hold because it is not greasy • does not easily flake/crumble because shortcrust pastry used • gluten in the flour sets / the pastry goes hard when cooked to make a solid/crisp outer shell / hold the filling | <p>Part Mark</p> <p>2x1</p> <p>2x1</p> | <p>Total Mark</p> <p>(2)</p> <p>(2)</p> |
| | | (Total 22 marks) | |
| | | (TOTAL FOR PAPER : 44 MARKS) | |

