

Mark Scheme (Results) Summer 2007

GCSE

GCSE Design and Technology:
Food Technology Higher 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 (1970/2H)
Full Course Higher Tier Mark Scheme

Question Number	Question		
1970_2H_Q01a	<p>The drawing shows a vegetarian party that is sold pre-packaged 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: Three reasons given: 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> <p><u>Market</u> Point: to provide a snack product Reason: to fill you up between meals</p> <p>Point: to provide a product for packed lunches/work lunches Reason: a compact product/balanced nutrients/quick meal</p> <p>Point: to provide for vegetarians Reason: to meet dietary/health choices / religious needs / extend the market</p> <p>Point: to provide a healthier snack meal Reason: to reduce consumption of meat/fat</p>	<p>Part Mark</p> <p>3x1 3x1</p>	<p>Total Mark</p> <p>(6)</p>

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_2H_Q01b	<p>The filling in the vegetarian pasty contains a sauce and mixed vegetables. One reason why the filling contains a sauce is the 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)
1970_2H_Q01c	<p>The filling is put onto the pastry using a special Computer Aided Manufacture (CAM) machine.</p> <p>Give <u>two</u> advantages of using a CAM machine to put the filling into 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_2H_Q01d	<p>The vegetarian pasty is made using shortcrust pastry.</p> <p>Give <u>two</u> properties of shortcrust pastry that make it suitable for the pasty.</p> <p>For each property give <u>one</u> reason 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></p> <p></p> <p></p> <p></p> <p>2x1</p> <p>2x1</p>	<p>Total Mark</p> <p></p> <p></p> <p></p> <p></p> <p></p> <p>(4)</p>

Question Number	Question		
1970_2H_Q01e	<p>The vegetarian pasty is sold in a green coloured package.</p> <p>Give <u>one</u> reason why the package is green coloured.</p>		
	<p>Answer</p> <p>One reason explained:</p> <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 	<p>Part Mark</p> <p>2x1</p>	<p>Total Mark</p> <p>(2)</p>
1970_2H_Q01f	<p>The vegetarian pasty has a crimped edge.</p> <p>Explain <u>one</u> reason why the edge is crimped.</p>		
	<p>Answer</p> <p>One reason explained:</p> <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 	<p>Part Mark</p> <p>2x1</p>	<p>Total Mark</p> <p>(2)</p>

Question Number	Question		
1970_2H_Q01g	<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)

Question Number	Question		
1970_2H_Q02ai	<p>There are many small businesses making pizzas.</p> <p>Give <u>three</u> ways in which a small business could use a food processor to prepare the ingredients for a pizza.</p>		
	<p>Answer</p> <p>Three ways given:</p> <ul style="list-style-type: none"> • mixing dough /kneading dough / making the dough / making the bases • slicing vegetables / slicing meat • grating vegetables / grating cheese • pureeing tomatoes/sauce ingredients / pulping tomatoes/sauce ingredients / blending tomatoes /sauce ingredients • mincing/chopping meat • chopping herbs 	<p>Part Mark</p> <p>3x1</p>	<p>Total Mark</p> <p>(3)</p>
1970_2H_Q02aii	<p>Give <u>two</u> considerations, apart from cost, that a small catering business would take into account when buying a food processor.</p>		
	<p>Answer</p> <p>Two considerations given:</p> <ul style="list-style-type: none"> • durability • versatility • weight / is easy to move around • easy to operate / does not take long to train staff • easy to clean /food hygiene is easy to maintain / washes well/safely in a dishwasher • safe to use / staff are not endangered • range of functions / accessories to maximise use • size/storage of processor • volume/size/capacity • speed of operation / time 	<p>Part Mark</p> <p>2x1</p>	<p>Total Mark</p> <p>(2)</p>

Question Number	Question		
1970_2H_Q02b	<p>Small businesses often use pre-prepared blended ingredients.</p> <p>Explain <u>two</u> advantages of using pre-prepared blended spices.</p>		
	<p>Answer</p> <p>Two advantages explained:</p> <ul style="list-style-type: none"> reduces costs/waste because you do not need to buy separate spices / specialist equipment / less labour needed quicker to use / no skill involved because already mixed / ready to use strength remains consistent/taste stays the same because they are blended to a set recipe less storage needed because you do not need individual spices / only one product needed 	<p>Part Mark</p> <p>2x1</p> <p>2x1</p>	<p>Total Mark</p> <p>(4)</p>
1970_2H_Q02c	<p>The development kitchen of a small pizza company often uses Computer Aided Design (CAD) software.</p> <p>Give <u>one</u> way in which each of the following pieces of CAD software would help the development kitchen with a new pizza product.</p>		
	<p>Answer</p> <p>One way given:</p> <p>Spreadsheets:</p> <ul style="list-style-type: none"> costs can be calculated/assessed/recorded recipes can be scaled / recipes can be changed for batch/high volume production record market research results <p>Nutritional analysis:</p> <ul style="list-style-type: none"> work out nutritional content use to prepare labels use to work out nutritional claims / content of fat/sugar/protein/fibre/salt/GI/vitamins/minerals 	<p>Part Mark</p> <p>1</p> <p>1</p>	<p>Total Mark</p> <p>(2)</p>

Question Number	Question		
1970_2H_Q02di	<p>Pizzas are also produced by other manufacturers in quantity.</p> <p>Explain <u>one</u> reason why each of the following scales of production would be used.</p>		
	<p>Answer</p> <p>One reason explained:</p> <p>Pizza bases produced in high volume</p> <ul style="list-style-type: none"> • can be used to make different types of pizzas because the base remains the same • versatile/high demand because can be used or sold as standard component parts • bases can be stored because they are a low risk food / have a good shelf life • bulk buy ingredients which reduces costs <p>Chilled pizzas produced in batches</p> <ul style="list-style-type: none"> • have a short shelf life because bacteria can multiply • have a short shelf life and this avoids waste • popular products to satisfy demand • must be sold quickly because the base will go soggy • easy to trace/recall batch to ensure quality 	<p>Part Mark</p> <p>2x1</p> <p>2x1</p>	<p>Total Mark</p> <p>(4)</p>
Question Number	Question		
1970_2H_Q02dii	<p>Give <u>three</u> ways in which ICT systems can help pizza manufacturers control their stock.</p>		
	<p>Answer</p> <p>Three ways given:</p> <ul style="list-style-type: none"> • rotating stock / checking shelf life • logging stock / listing stock • tracking supplies in transit/moving around the factory • automatic reorder of stock • EPOS orders direct from sales till /logging how much is sold <p><i>(Do not accept spreadsheet on its own)</i></p>	<p>Part Mark</p> <p>3x1</p>	<p>Total Mark</p> <p>(3)</p>

Question Number	Question		
1970_2H_Q02e	<p>The manufacturer of the pizza uses weight controls at different stages of the production process.</p> <p>Describe <u>two</u> stages when the manufacturer uses weight controls when producing pizzas.</p>		
	<p>Answer</p> <p>Two stages described:</p> <ul style="list-style-type: none"> • at the beginning of the manufacture when individual ingredients are weighed • when the pizza bases are prepared/rolled/shaped to measure the dough • during manufacture when toppings are added • at the end of manufacture when the product is finished/packaged 	<p>Part Mark</p> <p>2x1 2x1</p>	<p>Total Mark</p> <p>(4)</p>
			(Total 22 marks)

Contain a pastry element that is also decorative

- Evidence that it has a pastry element
eg Named pastry - shortcrust/flaky/filo/choux/hot water crust/suet
- evidence that the pastry is decorative
eg Fluted edges/crimping/lattice/cuts/pastry leaves/shapes

1

1

Contain a luxury ingredient and edible garnish

- Evidence that it contains a luxury ingredient
eg Alcohol/unusual or expensive ingredients/creams/smoked salmon/caviar/unusual meats
- evidence of an edible garnish
eg Parsley/herbs/tomatoes/peppers/cucumber/lemon/olives

1

1

Be easy to serve and have a shelf life of five days

- Evidence of how it is easy to serve
eg Use of foil trays/tins/ramekins / easy to cut / small size/shape
- Evidence of how it has a shelf life of five days
eg Meats/fish cooked or preserved/use of emulsifiers/stabilisers/preservatives or use of aspic jelly / suitable to freeze/chill

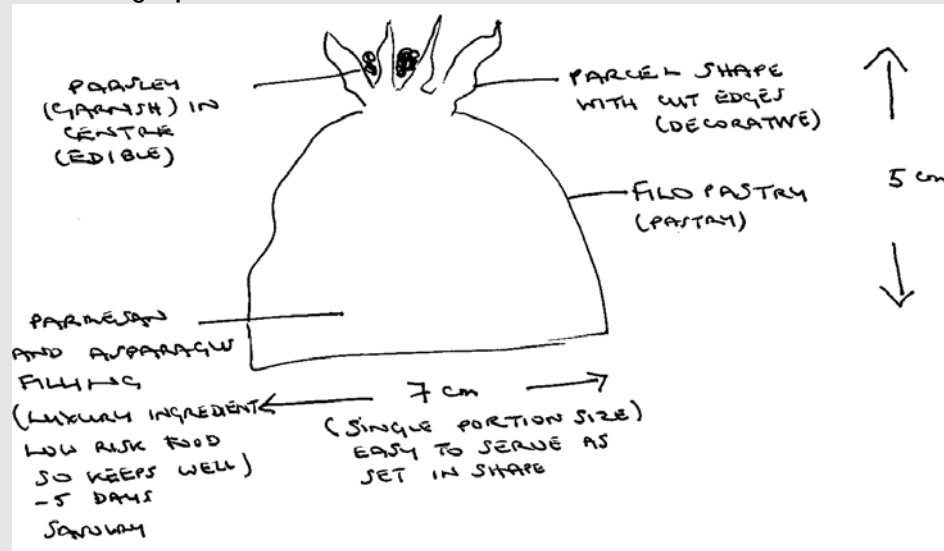
1

1

(Do not accept references to packaging)

(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.

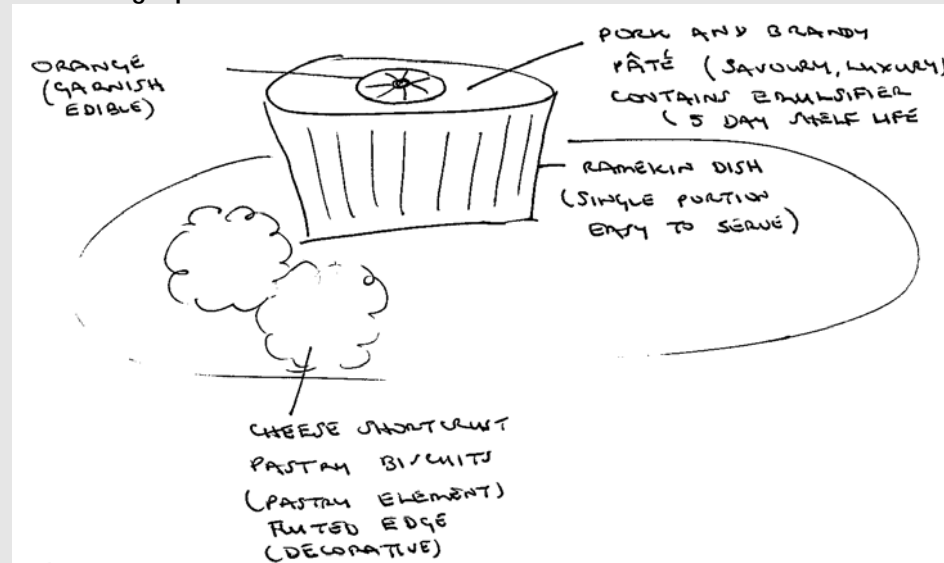
Use exactly the same criteria as design idea 1 to mark design idea 2.

- One **different** savoury ingredient named
- One **different** small single portion method named
- One **different** pastry named
- One **different** decorative method for pastry named
- One **different** luxury ingredient named
- One **different** edible garnish named
- One **different** method of easy serving
- One **different** method of having a five-day shelf life named

1
1
1
1
1
1
1
1

(8)

Possible graphical solution:



Question Number	Question		
1970_2H_Q03b	<p>Three of the original specification points are repeated below.</p> <p>Evaluate how <u>one</u> of your design ideas succeeds or fails to meet each of these specification points.</p>		
	Answer	Part Mark	Total Mark
	<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. 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 be savoury and a small single portion Positive and negative reasons relating to:</p> <ul style="list-style-type: none"> • reference made to savoury ingredient • reference made to how it is a small single portion <p>(ii) Evaluation of: Must contain a pastry element that is also decorative Positive and negative reasons relating to:</p> <ul style="list-style-type: none"> • reference made to the named pastry element • reference made to how the pastry is decorative <p>(iii) Evaluation of: Must be easy to serve and have a shelf life of five days Positive and negative reasons relating to:</p> <ul style="list-style-type: none"> • reference made to how it is easy to serve • reference made as to how the five day shelf life is achieved 	<p>2x1</p> <p>2x1</p> <p>2x1</p>	<p>(2)</p> <p>(2)</p> <p>(2)</p>
(Total 22 marks)			

Question Number	Question		
1970_2H_Q04ai	Fruits and vegetable provide a good source of Vitamin C. Give <u>two</u> nutritional reasons why vitamin C is important in the human diet.		
	Answer	Part Mark	Total Mark
	Two reasons given: <ul style="list-style-type: none"> • fights infection / prevents scurvy / stabilises health / boosts immune system / stops you getting common illnesses/colds • helps prevent cancer / works with vitamins A and E • helps heal wounds / helps collagen form a repair web • reduces risk of heart disease/CHD/metabolise cholesterol • helps the absorption of iron / changes iron to a digestible form / ferric to ferrous 	2x1	(2)
Question Number	Question		
1970_2H_Q04aii	Give <u>one</u> reason why the Estimated Average Requirement (EAR) for Vitamin C is higher than other vitamins.		
	Answer	Part Mark	Total Mark
	One reason given: <ul style="list-style-type: none"> • not stored in body for long • easily lost in preparing/cooking food • water soluble • values diminish if food sources have been stored for a long time 	1	(1)

Question Number	Question		
1970_2H_Q04bi	<p>Fruits can be preserved to make them last longer.</p> <p>Explain <u>one</u> reason why frozen strawberries lose their shape when they are thawed.</p>		
	<p>Answer</p> <p>One reason explained:</p> <ul style="list-style-type: none"> cell walls are pierced/ruptured/split/damaged because of the ice crystals formed during freezing additional water is produced because the cell walls have ruptured/split 	2x1	(2)
Question Number	Question		
1970_2H_Q04bii	<p>In some countries irradiation is used to preserve strawberries.</p> <p>Give <u>two</u> reasons for using irradiation to preserve strawberries.</p>		
	<p>Answer</p> <p>Two reasons given:</p> <ul style="list-style-type: none"> takes longer to ripen lengthens shelf life during transportation less chance of food poisoning / destroys bacteria kills insects 	2x1	(2)

Question Number	Question		
1970_2H_Q04c	<p>Fruit juices can be set using different natural products, such as gelatine and pectin.</p> <p>Describe how each product sets fruit juices.</p>		
	<p>Answer</p> <p>Each way described:</p> <p>Gelatine: absorbs water and swells to form a gel the gel liquefies when heated and sets when cooled</p> <p>Pectin: reaction between fruit acid and sugar, which forms a gel</p>	<p>Part Mark</p> <p>2x1</p> <p>2x1</p>	<p>Total Mark</p> <p>(4)</p>
1970_2H_Q04di	<p>A setting agent is needed for a new fruit and dairy dessert. The dessert must be suitable for vegetarians.</p> <p>Describe <u>one</u> way in which the needs of vegetarians would influence the choice of a setting agent in the dessert.</p>		
	<p>Answer</p> <p>One way described:</p> <ul style="list-style-type: none"> • gelatine comes from an animal/bones so it is not suitable for vegetarians • non animal products must be used so that it can be eaten by all types of vegetarian • agar could be used as it comes from a vegetable source/sea weed 	<p>Part Mark</p> <p>2x1</p>	<p>Total Mark</p> <p>(2)</p>

Question Number	Question		
1970_2H_Q04dii	<p>Chemical additives are also used to improve the fruit and dairy dessert.</p> <p>Give <u>three</u> disadvantages of using chemical additives.</p>		
	<p>Answer</p> <p>Three disadvantages given:</p> <ul style="list-style-type: none"> • make the consumer ill / cause allergic reactions / long term health problems • builds up in the body over time • reduce sales / people may not want to buy it • an un-natural food • may be considered unethical/morally wrong 	3x1	(3)
Question Number	Question		
1970_2H_Q04ei	<p>Once the product has been designed, the packaging has to be considered.</p> <p>Describe <u>one</u> environmental advantage of using glass for the packaging.</p>		
	<p>Answer</p> <p>One advantage described:</p> <ul style="list-style-type: none"> • easy to clean/sterilise so that it can be reused • can be recycled so that it can produce new glass items / reduce pollution 	2x1	(2)

Question Number	Question		
1970_2H_Q04eii	Explain <u>two</u> ways in which the packaging can be used to educate the consumer.		
	Answer	Part Mark	Total Mark
	<p>Two ways explained:</p> <ul style="list-style-type: none"> • the nutritional chart can show the consumer how healthy the product is / exact nutritional content • ingredients list can be used so that the consumer does not have an allergic reaction • correct cooking/storage instructions so that the consumer avoids food poisoning • recipe ideas can be given so that the consumer can be creative / make new dishes • contains the manufacturers name/address/email because it must meet consumers legal protection / if there is a problem • has use-by date so that foods remain safe to eat 	<p>2x1</p> <p>2x1</p>	<p>(4)</p>
		(Total 22 marks)	
		(TOTAL FOR PAPER: 88 MARKS)	

Design & Technology: Food Technology (3970/2H)
Short Course Higher Tier Mark Scheme

Question Number	Question		
3970_2H_Q01a	<p>The drawing shows a vegetarian party that is sold pre-packaged 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. For each point, give <u>one</u> reason why it should be included.</p>		
	<p>Answer</p> <p>Three specification points given: Three reasons given: 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> <p><u>Market</u> Point: to provide a snack product Reason: to fill you up between meals</p> <p>Point: to provide a product for packed lunches/work lunches Reason: a compact product/balanced nutrients/quick meal</p> <p>Point: to provide for vegetarians Reason: to meet dietary/health choices / religious needs / extend the market</p> <p>Point: to provide a healthier snack meal Reason: to reduce consumption of meat/fat</p>	<p>Part Mark</p> <p>3x1 3x1</p>	<p>Total Mark</p> <p>(6)</p>

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		
3970_2H_Q01b	<p>The filling in the vegetarian pastry contains a sauce and mixed vegetables. One reason why the filling contains a sauce is the 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_2H_Q01c	<p>The filling is put onto the pastry using a special Computer Aided Manufacture (CAM) machine.</p> <p>Give <u>two</u> advantages of using a CAM machine to put the filling into 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		
3970_2H_Q01d	<p>The vegetarian pasty is made using shortcrust pastry.</p> <p>Give <u>two</u> properties of shortcrust pastry that make it suitable for the pasty. For each property give <u>one</u> reason 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>2x1 2x1</p>	<p>Total Mark</p> <p>(4)</p>

Question Number	Question		
3970_2H_Q01e	<p>The vegetarian pasty is sold in a green coloured package.</p> <p>Give <u>one</u> reason why the package is green coloured.</p>		
	<p>Answer</p> <p>One reason explained:</p> <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 	<p>Part Mark</p> <p>2x1</p>	<p>Total Mark</p> <p>(2)</p>
3970_2H_Q01f	<p>The vegetarian pasty has a crimped edge.</p> <p>Explain <u>one</u> reason why the edge is crimped.</p>		
	<p>Answer</p> <p>One reason explained:</p> <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 	<p>Part Mark</p> <p>2x1</p>	<p>Total Mark</p> <p>(2)</p>

Question Number	Question		
3970_2H_Q01g	<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)	

Question Number	Question		
3970_2H_Q02ai	<p>There are many small businesses making pizzas.</p> <p>Give <u>three</u> ways in which a small business could use a food processor to prepare the ingredients for a pizza.</p>		
	<p>Answer</p> <p>Three ways given:</p> <ul style="list-style-type: none"> • mixing dough / kneading dough / making the dough / making the bases • slicing vegetables / slicing meat • grating vegetables / grating cheese • pureeing tomatoes/sauce ingredients / pulping tomatoes/sauce ingredients / blending tomatoes /sauce ingredients • mincing/chopping meat • chopping herbs 	3x1	(3)
Question Number	Question		
3970_2H_Q02aii	<p>Give <u>two</u> considerations, apart from cost, that a small catering business would take into account when buying a food processor.</p>		
	<p>Answer</p> <p>Two considerations given:</p> <ul style="list-style-type: none"> • durability • versatility • weight / is easy to move around • easy to operate / does not take long to train staff • easy to clean /food hygiene is easy to maintain / washes well/safely in a dishwasher • safe to use / staff are not endangered • range of functions / accessories to maximise use • size/storage of processor • volume/size/capacity • speed of operation / time 	2x1	(2)

Question Number	Question		
3970_2H_Q02b	<p>Small businesses often use pre-prepared blended ingredients.</p> <p>Explain <u>two</u> advantages of using pre-prepared blended spices.</p>		
	Answer	Part Mark	Total Mark
	<p>Two advantages explained:</p> <ul style="list-style-type: none"> • reduces costs/waste because you do not need to buy separate spices / specialist equipment / less labour needed • quicker to use / no skill involved because already mixed / ready to use • strength remains consistent/taste stays the same because they are blended to a set recipe • less storage needed because you do not need individual spices / only one product needed 	 2x1 2x1	 (4)

Question Number	Question		
3970_2H_Q02c	<p>The development kitchen of a small pizza company often uses Computer Aided Design (CAD) software.</p> <p>Give <u>one</u> way in which each of the following pieces of CAD software would help the development kitchen with a new pizza product.</p>		
	<p>Answer</p> <p>One way given:</p> <p>Spreadsheets:</p> <ul style="list-style-type: none"> • costs can be calculated/assessed/recorded • recipes can be scaled / recipes can be changed for batch/high volume production • record market research results <p>Nutritional analysis:</p> <ul style="list-style-type: none"> • work out nutritional content • use to prepare labels • use to work out nutritional claims / content of fat/sugar/protein/fibre/salt/GI/vitamins/minerals 	<p>Part Mark</p> <p>1</p> <p>1</p>	<p>Total Mark</p> <p>(2)</p>
(Total 11 marks)			

Question Number	Question		
3970_2H_Q03ai	Fruits and vegetable provide a good source of Vitamin C. Give <u>two</u> nutritional reasons why vitamin C is important in the human diet.		
	Answer	Part Mark	Total Mark
	Two reasons given: <ul style="list-style-type: none"> • fights infection / prevents scurvy / stabilises health/boosts immune system / stops you getting common illnesses/colds • helps prevent cancer / works with vitamins A and E • helps heal wounds / helps collagen form a repair web • reduces risk of heart disease/CHD/metabolise cholesterol • helps the absorption of iron / changes iron to a digestible form / ferric to ferrous 	2x1	(2)
Question Number	Question		
3970_2H_Q03aii	Give <u>one</u> reason why the Estimated Average Requirement (EAR) for Vitamin C is higher than other vitamins.		
	Answer	Part Mark	Total Mark
	One reason given: <ul style="list-style-type: none"> • not stored in body for long • easily lost in preparing/cooking food • water soluble • values diminish if food sources have been stored for a long time 	1	(1)

Question Number	Question		
3970_2H_Q03bi	<p>Fruits can be preserved to make them last longer.</p> <p>Explain <u>one</u> reason why frozen strawberries lose their shape when they are thawed.</p>		
	<p>Answer</p> <p>One reason explained:</p> <ul style="list-style-type: none"> cell walls are pierced/ruptured/split/damaged because of the ice crystals formed during freezing additional water is produced because the cell walls have ruptured/split 	2x1	(2)
Question Number	Question		
3970_2H_Q03bii	<p>In some countries irradiation is used to preserve strawberries.</p> <p>Give <u>two</u> reasons for using irradiation to preserve strawberries.</p>		
	<p>Answer</p> <p>Two reasons given:</p> <ul style="list-style-type: none"> takes longer to ripen lengthens shelf life during transportation less chance of food poisoning / destroys bacteria kills insects 	2x1	(2)

Question Number	Question	Part Mark	Total Mark
3970_2H_Q03c	<p>Fruit juices can be set using different natural products, such as gelatine and pectin.</p> <p>Describe how each product sets fruit juices.</p>		
	Answer		
	Each way described:		
	Gelatine: absorbs water and swells to form a gel the gel liquefies when heated and sets when cooled	2x1	
	Pectin: reaction between fruit acid and sugar , which forms a gel	2x1	(4)
			(Total 11 marks)
TOTAL FOR PAPER: 44 MARKS			

