

2017 Health and Food Technology Higher

Finalised Marking Instructions

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General marking principles for Higher Health and Food Technology

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this paper. These principles must be read in conjunction with the detailed marking instructions, which identify the key features required in candidate responses.

- (a) Marks for each candidate response must <u>always</u> be assigned in line with these general marking principles and the detailed marking instructions for this assessment.
- (b) Marking should always be positive, ie marks should be awarded for what is correct and not deducted for errors or omissions.
- (c) If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader.
- (d) (i) For marks to be awarded, responses must relate to the question asked. Where candidates give points of knowledge without specifying the context, these should be awarded marks unless it is clear that they do not relate to the context of the question.
 - (ii) In this question paper, the following command words are used:
 - A: Describe
 - B: Explain
 - C: Evaluate
 - D: Analyse
 - (iii) For each candidate response, the following provides an overview of the marking principles. Refer to the specific Marking Instructions for further guidance on how these principles should be applied.

A. Questions that ask candidates to Describe . . .

Candidates should provide a statement of characteristics or features related to the question. It is more than an outline or a list. They need not be in any particular order. Candidates may provide a number of straightforward points or a smaller number of developed points, or a combination of these. Up to the total mark allocation for this question:

- 1 mark should be awarded for each accurate relevant point of knowledge linked to the context of the question.
- A further mark should be awarded for any accurate relevant point that is developed from the same point of knowledge.

B. Questions that ask candidates to Explain . . .

Candidates should make a number of points that relate to the cause and effect and/or make the relationship between things clear in the context of the question. Candidates may provide a number of straightforward explanations or a smaller number of developed explanations, or a combination of these. Up to the total mark allocation for this question:

- 1 mark should be awarded for each accurate relevant point of reason.
- A further mark should be awarded for any accurate relevant point that is developed from the same reason.

C. Questions that ask the candidate to Evaluate . . .

Candidates should make a number of comments which make a judgement and determine the value of something based on the criteria provided in the question. Candidates may provide a number of straightforward comments or a smaller number of developed comments, or a combination of these. Up to the mark allocation for this question:

- 1 mark should be awarded for each accurate relevant evaluative comment linked to the context of the question.
- A further mark should be awarded for any accurate relevant evaluative comment that is developed from the same point of information.

D. Questions that ask the candidate to Analyse . . .

Candidates should make a number of comments related to the context of the question. Candidates should identify appropriate information from the given sources, the relationship between the identified information, and their significance when taken together.

Up to the mark allocation for this question:

- 1 mark should be awarded for each explanation of the impact of one piece of information linked to the context of the guestion.
- 1 further mark should be awarded for an explanation that is developed, to include the impact of a piece of information from a second source linked to the same identified piece of information. (2 marks)

Or

2 further marks should be awarded for an explanation that is developed to include the impact of further information from two further sources linked to the same identified piece of information. (**3 marks**)

Marking instructions for each question

Question		Expected answer(s)	Max mark	Additional guidance
1.	(a)	 Eating complex carbohydrates make you feel fuller for longer therefore are less likely to snack on high sugar/high fat foods which would reduce the risk of developing CHD. Complex carbohydrates are a source of fibre which helps to reduce cholesterol levels therefore reducing risk of CHD. Complex carbohydrates are a source of ACE vitamins/antioxidant vitamins which help reduce the effect of free radicals reducing the risk of CHD. Accept any other justifiable answer	2	Candidates should make a number of points that make the issue plain or clear, for example by showing connections between complex carbohydrates and how it helps reduce CHD. 1 mark should be given for each accurate relevant explanation. (up to a maximum of 2 marks)

Question	Expected answer(s)	Max mark	Additional guidar	nce
(b)	 +ve: There are many cook-chill foods available to buy on the market which is good because it will add variety to the single person's diet. +ve: Some cook-chill foods follow current dietary advice, this is good as it allows the single person to make healthier choices. +ve: Are available in single portions which is good for single person helping them to avoid wastage of food. +ve: Some cook-chill foods may be cheaper/than purchasing individual ingredients, this is good for the single person as some may be on a low budget. -ve: Can be expensive which may not be good for single person as some may be on a low budget. -ve: These may be high in fat/salt/sugar this is bad as it contributes to obesity/hypertension/dental caries for a single person. -ve: These may be high in salt, this is bad for the single person as it could lead to hypertension leading to a stroke in later life (This is an example of a developed answer). 	3	evaluative common chill foods for a second form of the consequence Candidates may prevaluations or a second form of the consequence 1 mark shouth of the consequence of the consequenc	A clear understanding cook chilled foods A judgement of the suitability The impact on the needs of the single person provide a number of straightforward smaller number of developed combination of these. Id be given for each relevant evaluation. ark should be awarded for any nat is developed. of 2 marks may be awarded for valuations linked to the same aspect of
	Accept any other justifiable answer			

Question	Expected answer(s)	Max mark	Additional guidance
			 Candidates can be credited in a number of ways up to a maximum of three marks. 3 evaluative comments each linked to a different aspect of cook-chill foods and single person. (maximum of 3 marks) or one developed evaluation linked to an aspect of cook-chill foods and linked to a single person plus one evaluative comment linked to a second aspect of cook-chill foods and linked to a single person. (up to a maximum of 3 marks)

Question	Expected answer(s)	Max mark	Additional guidance
(c)	Aspect of the diet: Energy intake His energy intake is higher than he requires, this could help him when he is training. (explanation of the impact of the nutrient intake linked to the DRV - 1 mark) This will prevent him from getting tired. (possible consequence of the nutrient intake on health - 1 mark) The wholemeal pasta will provide carbohydrates which will contribute to his energy intake. (conclusion about the contribution made by the lunch 1 mark) Aspect of the diet: Protein Protein intake is lower than recommended which means that he may not repair cells as efficiently. (explanation of the impact of the nutrient intake linked to the DRV - 1 mark) If he sustains an injury during training it may be harder for him to repair damaged tissues. (possible consequence of the nutrient intake on health - 1 mark) The pasta/milk will contribute to his limited protein intake. (conclusion about the contribution made by the lunch 1 mark)	9	Candidates should make a number of comments related to the 35 year old man. Candidates should identify appropriate information from table 1, table 2 and the lunch, the relationship between this information, and their significance when taken together. For each of the three identified aspects of the male's diet/nutrients in relation to the DRVs: 1 mark is available for explaining the impact of different aspects of the male's diet in relation to the DRVs 1 mark is available for explaining the possible consequences for the male's health 1 mark is available for reaching a conclusion about the contribution made by the lunch to the male's diet. (up to a maximum of 9marks)

Question	Expected answer(s)	Max mark	Additional guidance
	Aspect of the diet: VitaminB2 His vitamin B2 intake is higher than he requires, this will help him release energy from his food. (explanation of the impact of the nutrient intake linked to the DRV 1 mark)		
	He will not get tired easily whist training. (possible consequence of the nutrient intake on health 1 mark)		
	The pasta/tomatoes in his lunch will contribute to his good B2 intake. (conclusion about the contribution made by the lunch 1 mark)		
	Aspect of the diet: Vitamin C The vitamin c intake is very low for the man. This could result in poor absorption of iron. (explanation of the impact of the nutrient intake linked to the DRV 1 mark)		
	This could lead to anaemia which may negatively affect his training/cause him to become tired whilst training. (possible consequence of the nutrient intake on health 1 mark)		
	The tomatoes contain some vitamin C so contribute to his vitamin C intake. (conclusion about the contribution made by the lunch 1 mark)		

Question	Expected answer(s)	Max mark	Additional guidance
	Aspect of the diet: Iron Iron intake is lower than required which means he will have a lack of red blood cells. (explanation of the impact of the nutrient intake linked to the DRV 1 mark) This could make him more susceptible to developing anaemia which may negatively impact his training/cause him to become tired whilst training. (possible consequence of the nutrient intake on health 1 mark) The pasta/basil will be the only sources of iron contributing to the low intake. (conclusion about the contribution made by the lunch)		

Question		Expected answer(s)	Max mark	Additional guid	ance
	(d)	Possible candidate responses could include: Crunchiness 5 (very high) - ve: The cereal bar has been rated very high for	4		uld make a number of evaluative ne suitability of the cereal bar for an
		crunchiness, which may indicate that it is dry, and therefore may not appeal to the athlete.		Fact	A clear understanding of the rating relating to the cereal bar
				Opinion	A judgement of suitability
				Consequence	The impact on the needs of the athlete
				 evaluations or a evaluations, or 1 mark shows evaluation A further revaluation A maximum 	r provide a number of straightforward a smaller number of developed a combination of these. Fould be awarded for each relevant a should be awarded for any that is developed. In of two marks may be awarded for evaluations linked to the same attribute.

Question	Expected answer(s)	Max mark	Additional guidance
	 Fruitiness 4 (high) +ve: The cereal bar has been given a high rating for fruitiness indicating that it has been made using a high proportion of fruit. This may be suitable as it may contribute towards one portion of fruit for the man therefore appealing to the athlete. Colour 1 (very low) +ve: The cereal bar has been given a very low rating for colour this could indicate that the product has been made without artificial colours/additives which may mean that is suitable, especially if the athlete is allergic to any additives. Sweetness 4 (high) -ve: The cereal bar has been given a high rating for sweetness. This may mean that the bar has a high sugar content, making it unsuitable as it could increase the athlete's risk of developing dental caries and could contribute to weight gain, so leading to obesity (this is an example of a developed answer). Aroma 2 (low) +ve: The cereal bar has been given a low rating for aroma, indicating that plain/bland ingredients have been used, which may be good as the athlete may not like overpowering smells. Accept any other justifiable answer 		Candidates can be credited in a number of ways up to a maximum of 4 marks by providing either: • four evaluative comments each linked to a different aspect of the suitability of the cereal bar for athletes (maximum of 4 marks) OR • two evaluative comments linked to each of two different sensory attributes of the suitability of the cereal bar for athletes (eg two comments related to fruitiness and two for colour or any of the other attributes, up to a maximum of 4 marks) OR • two evaluative comments linked to one aspect of the suitability of the cereal bar for athletes (eg two comments related to colour or any of the other attributes) Plus • two comments linked to two different aspects of the suitability of the cereal bar for athletes (maximum of 4 marks) (eg one comment related to salty and one comment relate to thickness or any of the other attributes). If a candidate has included additional consequences in their evaluation for any attribute these can be awarded an additional mark for a developed answer (see example in expected answers) (up to a maximum of 4 marks).

Question	Expected answer(s)	Max mark	Additional guidance
(e)	 A lack of fibre in the diet may contribute to bowel disease as fibre works along with water to make the faeces softer. Without, faeces would be hard which could lead to bowel disease later. A lack of fruit and vegetables in the diet may contribute to bowel disease as they contain water/ fibre to help the removal of waste products in the body, therefore reducing the risk of bowel disease. A lack of exercise may lead to bowel disease as inactivity reduces the movement of the bowel, increasing the risk of bowel disease. 	2	Candidates should make a number of points that make the issue plain or clear, for example by showing connections between the reasons given and bowel disease. Up to the total mark allocation for this question: 1 mark should be given for each accurate relevant explanation (up to a maximum of 2 marks).

which may be less beneficial as there may be more waste for the café. If this happened regularly, this could contribute to a loss of profits for the café (this is an example of a developed answer). • -ve: Organic produce may be more expensive therefore may be less beneficial as costs would increase for the consumer and may put people off going to the café. • -ve: Sourcing a wide range of organic ingredients for • 1 mark should be awarded for each relevant	Question		Expected answer(s)	Max mark	Additional guidance	
there would be less choice on the menu. • a further mark should be awarded for any evaluation that is developed • Accept any other justifiable answer • A maximum of 2 marks can be awarded for developed evaluations linked to the same identified aspect of using organic ingredients in a cafe.	2.	(a)	 +ve: Including organic produce may be beneficial as it may appeal to ethically environmentally aware customers, therefore increase sales. +ve: There is a wide range of produce available, so more beneficial for the café as consumers may be able to get dishes that they like in the café, therefore increasing sales. -ve: Organic produce may have a shorter shelf-life, which may be less beneficial as there may be more waste for the café. If this happened regularly, this could contribute to a loss of profits for the café (this is an example of a developed answer). -ve: Organic produce may be more expensive therefore may be less beneficial as costs would increase for the consumer and may put people off going to the café. -ve: Sourcing a wide range of organic ingredients for the café may be difficult therefore less beneficial as there would be less choice on the menu. 		Comments related to ingredients in a cafe Fact Opinion Consequence Candidates may profevaluations or a smalevaluations, or a column to the mark allowed to the evaluation 1 mark should be evaluation a further mark that is develope A maximum of 2 evaluations linked	A clear understanding of using organic ingredients A judgement of suitability The impact of the needs of the café vide a number of straightforward aller number of developed embination of these. cation for this question: the awarded for each relevant should be awarded for any evaluation and aller number of awarded for developed ed to the same identified aspect of

Ques	tion	Expected answer(s)	Max mark	Additional guidance
				Candidates can be credited in a number of ways up to a maximum of 4 marks.
				four evaluative comments each relating to four different identified aspects of using organic ingredients in a café. OR
				 two evaluative comments each relating to two different identified aspects of using organic ingredients in a café. OR
				two evaluative comments each relating to different identified aspects of using organic ingredients in a cafe.
				Plus
				two evaluative comments relating to a third identified aspect of using organic ingredients in a café.
				If a candidate has included additional consequences in their evaluation for any attribute these can be awarded an additional mark for a developed answer (see example in expected answers). (up to a maximum of 4 marks)

Question	Expected answer(s)	Max mark	Additional guidance
(b)	Preparation Using separate utensils when preparing raw meat for the salads and the vegetables therefore reducing the spread of harmful bacteria and reducing the risk of cross-contamination. Washing hands after preparing raw meat and before handling vegetables therefore preventing the spread of bacteria from hands to the food via blood from raw meat, reducing the risk of cross-contamination. Storing Raw meat being used in any salads should be stored below salad vegetables to prevent dripping, therefore helping to prevent cross-contamination. Prepared salad should be stored above raw meat to prevent any dripping from the meat, therefore helping to prevent cross-contamination. Cooking When cooking salad ingredients, ensure that all equipment has been washed thoroughly to remove bacteria prior to using so the risk of cross contamination is prevented. Accept any other appropriate answer	3	Candidates should make a number of points that make the issue plain or clear, for example by showing connections between the stages of preparation/cooking of food therefore preventing cross-contamination. Up to the total mark allocation for this question: 1 mark should be awarded for each relevant explanation up to a maximum of 3 marks. A further mark should be awarded for any explanation that is developed. (up to a maximum of 3 marks)

Question		l	Expected answer(s)	Max mark	Additional guidance	
	(c)	(i) Candidate responses could include: Introductory low prices +ve: This may be effective as before they try,	3	Candidates should be able to make a number of evaluative comments related to techniques used promoting new menu items in the cafe.		
			consumers will think that they are saving money and will come to the café/ pass on good comments to others, therefore increasing sales.		Fact	A clear understanding of the promotional technique
			+ve: This is good as it may generate interest in new		Opinion	A judgement of the suitability
			 products being developed in the café, therefore generating sales. +ve: This is good as it is a low price, so customers may choose to purchase it. -ve: This will only be a temporary measure and so sales could drop after introductory low prices stop, this may lose the café money instead of making a profit. Accept any other justifiable answer 		Consequence	The impact of the techniques on café sales/consumer choice
					evaluations or a evaluations, or a1 mark shownA further m	provide a number of straightforward smaller number of developed a combination of these. uld be given for each relevant evaluation mark should be awarded for any that is developed. (up to a maximum of 3

Question	Expected answer(s)		Additional guidance	
(ii)	 Free sampling of foods +ve: This can be done in the café and outside in the street. It might be suitable as it will give consumers in the area an idea of the type of food that the café has for sale. +ve: This would be good as if people enjoyed the free samples, they would tell other people about it, therefore increasing sales in the café. +ve: This would be good as customers will get to try the food to see if they like it and if they do, will purchase it. -ve: Some consumers may not be in the area the day the sampling happens therefore will miss out on the samples, therefore it may not increase sales in the café. -ve: Samples may be quite expensive to produce and may not be suitable as the cost may not be recouped in sales therefore losing the café money. Accept any other justifiable answer		Candidates can be credited in a number of ways up to a maximum of 3 marks by providing either: • two evaluative comments each linked to one method of promotion (Introductory low price or free sampling of food) plus • one evaluative comment linked to the second promotional technique. If a candidate has included a second consequence in their evaluation for any promotional technique this can be awarded an additional mark for a developed answer. (up to a maximum of 2 marks for any one promotional technique).	

Que	Question		Expected answer(s)	Max mark	Additional guidance
3.	(a)		 Peer pressure may influence teenagers as they may choose food to be the same as their friends/not wanting to be different/feeling part of a group, they may choose unhealthy/healthy options to fit in. Teenagers have a very definite idea about what they like and don't like and will therefore choose their food accordingly. Teenagers budget may be limited and they will choose foods which they can afford, which will limit their choice. Accept any other justifiable answer 	3	Candidates should make a number of points that make the issue plain or clear for example by showing connections between the factors which could influence choice of food and a teenager. Up to the mark allocation for this question. 1 mark should be awarded for each correct explanation related to a different factor, linking to teenagers. A further mark may be awarded for an explanation that is developed. (maximum 2 marks for any one factor) (up to a maximum of 3 marks)

Question	Expected answer(s)		Additional guidance	
Question (b)		Max mark 5	Candidates should ma	ke five evaluative comments er and the suitability of the meal in etary advice. A clear understanding of the ingredients in relation to current dietary advice A judgement of suitability of the meal for the teenager The impact of the meal on meeting current dietary
			evaluation linked to advice. Candidates can be cremarks. Candidates should make the meals in meeting of the evaluative comme	advice/reducing risk of dietary diseases awarded for each relevant to different pieces of dietary edited up to a maximum of 5 ke comments on the suitability of current dietary advice. marks may be awarded for accurate nts relating to five different pieces advice. (up to a maximum of 5

Que	estion	Expected answer(s)	Max mark	Additional guidance
		 Cranberry juice +ve: Juice will contain a portion of fruit therefore helping the teenager to meet the current dietary advice of increasing fruit and vegetable intake to at least 400g per day/at least 5 portions per day. -ve: Juice may contain added sugar, this is not helping the teenager to meet the current dietary advice of intake of free sugars, not to exceed 5% of total energy. 		
	(c)	 Calcium, phosphorus and vitamin D Calcium works with phosphorus to form/harden bones/teeth by forming calcium phosphate. Vitamin D aids the absorption of calcium into the bones/teeth so strengthening them. Vitamin D is required to be present in the intestine to aid the absorption of calcium and without it we could not make use of the calcium in our food. 	2	Candidates should make a number of points that make the issue plain or clear, for example by showing connections between each nutrient and its interrelationship. • 1 mark should be awarded for each accurate relevant explanation (up to a maximum of 2 marks).

Question	Expected answer(s)	Max mark	Additional guidance	
4. (a) (i)	 Food Additives + ve: Food for children may have lost some of its colour during processing. Food additives can be added to enhance the appearance, making it more attractive to children at the breakfast club. -ve: Additives in children's foods may not be beneficial as some children can be sensitive to them and may have allergic reactions/make them hyperactive whilst at breakfast club or school. Functional Foods +ve: Functional foods have the potential to improve health. This can be beneficial for children as they can get nutrients, eg omega 3, in foods like orange juice. +ve: Some functional foods may provide children with additional minerals/vitamins in the diet. This will be beneficial to children as it will help them to meet their DRV/nutritional needs. -ve: Functional foods can be expensive therefore not ideal as breakfast club providers may not wish to purchase them due to their limited budget. 	4	Fact Opinion Consequence Up to the mark allocation • 1 mark should be a evaluation - minim technological deve • A further mark should be a evaluation that is contact that is contact the evaluation of 2 maximum of 2 maximu	A clear understanding of the technological development A judgement of suitability for the breakfast club The impact on the needs of the breakfast club for this question: awarded for each relevant um one evaluative comment per lopment. buld be awarded for any developed. harks may be awarded for to any one technological

Question	Expected answer(s)	Max mark	Additional guidance
(iii)	 Ultra-Heat Treated Products +ve: These foods do not need to be stored in a fridge therefore they are more convenient for the breakfast club provider who does not have a large amount of storage space. +ve: These foods are completely sterile/killing bacteria, making the food safer for children, therefore reducing the risk of food poisoning. +ve: These foods tend to be cheaper therefore this is good, as it will save the breakfast club money. 		

Question	Expected answer(s)	Max mark	Additional guidance
(b) (i) (ii)	 Sugar This will add sweetness to the cake which will improve flavour. It incorporates air when creamed with butter, therefore giving the cake a lighter texture. Sugar will caramelise in the oven to give the cake a golden brown colour. Sugar may cause the cake to burn, leaving an unpleasant aftertaste. Flour The function of flour in cake baking is to provide structure/texture through the development of gluten. If self-raising flour is used, it will make the cake mixture rise, making it light in texture. Starch in the flour will turn to dextrin when dry heat is applied in the oven, resulting in the cake having a golden brown colour. Plus any other justifiable answer 	4	Candidates should make a number of points that make the issue plain or clear, for example by showing connections between the functional property and the cake. • 1 mark should be awarded for each accurate relevant explanation linked to the cake. • Candidates can be credited up to a maximum of 4 marks. 1 mark should be given for each correct explanation related to a different point of information linked to the functional property of each ingredient when making a cake, up to a maximum of 4 marks in total. • A maximum of 1 mark may be awarded for each correct explanation. • A maximum of 3 marks can be awarded for explanations linked to any one ingredient. For example candidates could provide either: Two different explanations linked to sugar and two explanations linked to flour OR Three different explanations linked to one ingredient plus one further point linked to the remaining ingredient. (Up to a maximum of 4 marks)

Question	Expected answer(s)	Max mark	Additional guidance
(c)	 The Environmental Health Officer will regularly inspect food premises without any prior notice given to ensure food safety for consumers. Environmental Health Officer can take samples of food for testing so ensuring food safety. Environmental Health Officers can issue improvement notices/ hygiene improvement notices to food businesses, which will state the offence/improvement needed to ensure the food is safe to eat ensuring food safety. If there is an imminent risk to public health, the Environmental Health Officer can close the restaurant down until appropriate measures have been taken to improve food safety. 	2	Candidates should make a number of points that make the issue clear by explaining the role of the EHO when enforcing food safety. These should relate to the question. Up to a maximum of 2 marks: 1 mark should be given for each accurate relevant interpretation of a point of knowledge related to the role of the EHO. (up to a maximum of 2 marks)

[END OF MARKING INSTRUCTIONS]