

GCE

Home Economics (Food, Nutrition and Health)

Advanced Subsidiary GCE

Unit **G002**: Resource Management

Mark Scheme for June 2013

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Annotations

Annotation	Meaning				
?	Unclear				
110	Benefit of doubt				
λ	Caret sign to show omission				
(MA)	Not answered question				
TIAN.	Repeat				
	Noted but no credit given				
✓	Tick				

C	Questi	ion	Answer	Marks	Guidance
1	(a)	(i)	£71 billion.	1	Units of measurement should be included in the answer. Accept 71, 71 Billion, not £71.
		(ii)	£73 billion.	1	Units of measurement should be included in the answer. Accept 73, 73 Billion, not £73.
		(iii)	2007	1	
	(b)		 Pubs etc. more family friendly, allowing children in Lack of time/busy lifestyles/women working longer hours Wider variety/choice Lack of cooking skills Eating out no longer seen as a special occasion/become cheaper/ eating with friends More disposable income People out of work/ more leisure time 	2	
	(c)		 Offer fresh food eg food may be sourced locally, seasonal At a reasonable price eg saves money, bargains at end of the day Supporting local producers eg low carbon foot print/ less food miles Can be centrally located in town eg limited travel needed, reduce transport costs Offers personal service eg expert advice, rapport with customers May find exotic or rare products eg produce not normally found in supermarket 	4	1 max mark if advantage not described

Question	Answer	Marks	Guidance
(d)	 Can be used abroad eg safer than cash, don't need to change currency More convenient than carrying cash eg personal security May come with extra perks eg cash back, loyalty points Can be used for expensive purchases/ unexpected bills eg spread the payments High levels of fraud protection eg safer when buying over the internet or telephone, chip and pin security, easy to track Insurance eg larger purchases protected if company doesn't fulfil contract Budgeting eg if used carefully will not incur interest, balance transfer 	4	Do not accept easy to use or quick unless qualified
(e)	 Cheaper cuts of meat can be tenderised by longer cooking time Energy efficient/inexpensive to run compared to other similar forms of cooking Can prepare a meal in advance whilst at work / doing other things Retains nutrients as no loss of liquid occurs Whole meal prepared in one pot so saves washing up Families can eat at different times because food can be kept warm safely 		

Question	Answer	Marks	Guidance
(f) •	Size/capacity; may not require a large capacity if just cooking for one or have limited space Range of features; might only require a basic model with limited features eg cooking and defrosting / might be their only form of cooking therefore need a more sophisticated model eg combination Price/money available; an elderly person may have limited finances so may prefer a cheaper model Quality/durability; will prefer something long lasting so that it offers good value for money After sales service; good after sales service will be important in the event there is a problem with the product. Ease of use, suitable controls to aid manual dexterity/ large display for poor eye sight	6	Do not accept fit for purpose unless qualified Response must relate to single elderly person Do not accept reference to energy efficiency

Question	Answer			Guidance
			Content	Levels of response
2 (a)	Describe how technology can be used to help manage time in the home. Answers may include: Online banking/ paying bills — consumers can access their accounts at any time from home Online shopping — can save your regular purchases in an online 'shopping list'. Email is more efficient than regular post News can be read online anytime TV and radio programmes can be accessed online at a convenient time, avoids temptation to continue watching Set top boxes (eg Sky Plus) can pause live TV or record programmes to watch at a convenient time. They can also series link programmes so it's not necessary to remember to record a favourite programme each time Smart phones or other personal devices can set reminders for appointments/ apps for reminders Delay timers on appliances for convenience eg cookers so a meal can be ready when you come home from work	10	If communication is clear this will help inform the level. Credit will be given for all valid points. Focus of question is about managing/organising time not saving time. If a candidate only describes how technology saves time and does not relate it to managing time maximum mark would be top of level 2.	Level 4 (9–10 marks) The candidate gives a comprehensive description of how a wide range of technology can be used to help manage time in the home. Ideas will be expressed clearly and fluently in a well-structured manner and will be supported, where appropriate, with relevant examples. Specialist terminology will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling. Level 3 (6–8 marks) The candidate gives a detailed description of how a range technology can be used to help manage time in the home. Ideas will be expressed clearly but may not be fully developed and will be supported, where appropriate with examples. Specialist terminology will be used correctly. There may be occasional errors of grammar, punctuation and spelling. Level 2 (3–5 marks) The candidate will give limited description of how technology can be used to help manage time in the home. Ideas will be expressed but may not be fully developed and will be supported with examples which may not be relevant. There will be limited use of specialist terminology. There may be some errors in spelling punctuation and grammar. Level 1 (1–2 marks) The candidate identifies technology with limited links to how it can be used in the home to manage time. Ideas will be poorly expressed or list like. There will be limited if any use of specialist terminology which may not always used appropriately. Errors of grammar, punctuation and spelling may be intrusive. 0 = no response worthy of credit

Answer	Marks		Guidance
		Content	Levels of response
 Development of new programs on washing machines enables management of time eg short cycle used to hang washing out before work Use of freezers to store perishable 			
frequent shopping. Batch baking and freezing means food is available more readily			
bread maker, food processor, soup maker, Robotic vacuum helps manage time effectively			
and reheat meals at different times			
Tetra pack reduces the need for			
Technological developments in food manufacturing eg cook chill meals enables time to be managed more effectively			
Advances in cleaning eg self cleaning ovens, Teflon coating, easy clean surfaces, cleaning products			
	 Development of new programs on washing machines enables management of time eg short cycle used to hang washing out before work Use of freezers to store perishable items in bulk reduces the need for frequent shopping. Batch baking and freezing means food is available more readily Labour saving equipment eg bread maker, food processor, soup maker, Robotic vacuum helps manage time effectively Microwave could be used to cook and reheat meals at different times Advances in packaging eg MAP, Tetra pack reduces the need for frequent shopping Technological developments in food manufacturing eg cook chill meals enables time to be managed more effectively Advances in cleaning eg self cleaning ovens, Teflon coating, easy clean surfaces, cleaning 	 Development of new programs on washing machines enables management of time eg short cycle used to hang washing out before work Use of freezers to store perishable items in bulk reduces the need for frequent shopping. Batch baking and freezing means food is available more readily Labour saving equipment eg bread maker, food processor, soup maker, Robotic vacuum helps manage time effectively Microwave could be used to cook and reheat meals at different times Advances in packaging eg MAP, Tetra pack reduces the need for frequent shopping Technological developments in food manufacturing eg cook chill meals enables time to be managed more effectively Advances in cleaning eg self cleaning ovens, Teflon coating, easy clean surfaces, cleaning 	Development of new programs on washing machines enables management of time eg short cycle used to hang washing out before work Use of freezers to store perishable items in bulk reduces the need for frequent shopping. Batch baking and freezing means food is available more readily Labour saving equipment eg bread maker, food processor, soup maker, Robotic vacuum helps manage time effectively Microwave could be used to cook and reheat meals at different times Advances in packaging eg MAP, Tetra pack reduces the need for frequent shopping Technological developments in food manufacturing eg cook chill meals enables time to be managed more effectively Advances in cleaning eg self cleaning ovens, Teflon coating, easy clean surfaces, cleaning

Question	Answer	Marks		Guidance
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(b)	Explain how a family on a low income can provide healthy meals. Answers may include: Meal planning and budgeting is important; it reduces food wastage and impulse purchases Plan meals for the week, write a shopping list based on this Shopping at a budget supermarket with special offers on fruit and vegetables eg super 6. Being aware of prices at different retail outlets and shopping accordingly Taking advantage of special offers/ buying healthy ingredients in bulk eg BOGOF, coupons Shop at the end of the day when fresh items may be reduced in price Make use of supermarket recipes eg 'feed a family of 4 for £5' Chose easy to prepare meals that don't require expensive, specialist ingredients Base meals around cheap, filling carbohydrates eg potatoes, pasta Freeze leftovers for another meal Cook in bulk and freeze portions for another meal. This saves time and fuel energy	15	If communication is clear this will help inform the level. Answers must relate to providing healthy meals on a low income. Credit will be given for all valid points.	Level 4 (13–15 marks) The candidate gives a comprehensive explanation of how a family on a low income can provide healthy meals. There will be clear links between low income budgeting and healthy meals. Ideas will be expressed clearly and fluently in a well-structured manner and will be supported with detailed and relevant examples. Specialist terminology will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling. Level 3 (9–12 marks) The candidate gives a detailed explanation of how a family on a low income can provide healthy meals. There will be links between low income budgeting and healthy meals. Ideas will be expressed clearly but may not be fully developed and will be supported with relevant examples. Specialist terminology will be used correctly. There may be occasional errors in spelling punctuation and grammar. Level 2 (5–8 marks) The candidate gives a limited explanation of how a family on a low income can provide healthy meals. There will be limited links between low income budgeting and healthy meals. Ideas will be expressed but may not be fully developed and will be supported with examples which may not be relevant/healthy. There will be limited use of specialist terminology. There may be some errors in spelling punctuation and grammar. Level 1 (1–4 marks) The candidate describes how a family on low an income can shop. Ideas will be poorly expressed and there will be limited if any use of specialist terminology which may not always used appropriately. Errors of grammar, punctuation and spelling may be intrusive.

Q	Question		Answer	Marks		Guidance	
					Content	Levels of response	
		•	Grow your own fruit and vegetables Ensure families utilises any benefits available which relate to food eg free school meals.				

	uestion	Answer	Marks		Guidance	
				Content Levels of response		
3	(a)	Explain the techniques that could be used for the safe storage of food in the home. Answers may include: Different foods of different natures need to be stored in the correct way/ store away from household chemicals Keep perishable and high risk food in the fridge to slow growth of microorganisms Check dates and rotate food accordingly Don't overstock a fridge or cool air will not circulate properly Make use of a fridge thermometer to check it is at the correct temperature of 0 to 5 degrees Do not place hot foods in a fridge as this may raise the internal temperature into the danger zone Ensure fridge is kept clean Keep raw and cooked foods separate to avoid cross contamination eg raw meat should be covered and placed at the bottom of the fridge Freezers should be at -18 degrees centigrade to keep microorganisms dormant and enzymes inactive Frozen food should be date marked for efficient stock rotation	10	If communication is clear this will help inform the level. Credit will be given for all valid points. Must relate to safe storage in the home	Level 4 (9–10 marks) The candidate gives a comprehensive explanation of a range of techniques for the safe storage of food in the home. Ideas will be expressed clearly and fluently in a well-structured manner and will be supported with relevant and detailed examples. Specialist terminology will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling. Level 3 (6–8 marks) The candidate gives a detailed explanation of the techniques for the safe storage of food in the home. Ideas will be expressed clearly but may not be fully developed and will be supported with relevant examples. Specialist terminology will be used correctly. There may be occasional errors in spelling punctuation and grammar. Level 2 (3–5 marks) The candidate gives a limited explanation of techniques for the safe storage of food. Ideas will be expressed but may not be fully developed and will be supported with examples which may not be relevant. There will be limited use of specialist terminology. There may be some errors in spelling punctuation and grammar. Level 1 (1–2 marks) The candidate describes techniques with no clear link to safe storage of food. Ideas will be poorly expressed and there will be limited if any use of specialist terminology which may not always used appropriately. Errors of grammar, punctuation and spelling may be intrusive. 0 = no response worthy of credit	

Question	Answer	Marks		Guidance
			Content	Levels of response
(b)	Describe the bacteria responsible for food poisoning. Answers may include: Salmonella; Infective food poisoning. Found in eggs, poultry, cooked meats, shellfish, unpasteurised milk, insects and sewage Symptoms; abdominal pain, diarrhoea, vomiting, headache and high fever. It is the most common bacteria in the UK. Destroyed above 70°C. Onset time 6 – 72 hours Staphylococcus aureus; Toxic food poisoning. Found in the human body, droplet infection, raw milk, meat, meat products. Symptoms; abdominal pain, severe vomiting and low temperature. Often transmitted due to poor personal hygiene. Onset time 1-6 hours Clostridium perfringens; Toxic food poisoning. Found in raw meat, soil from root vegetables, dust and animal excreta and sewage. Symptoms; abdominal pain, diarrhoea, nausea. Spore forming bacteria. Spores develop in the danger zone and anaerobic conditions. Onset time 12 – 18 hours Clostridium botulinum; Toxic food poisoning. Found in soil, raw meat and	15	If communication is clear this will help inform the level. Credit will be given for all valid points. Description should include type of bacteria, source, symptoms and onset time. Other accepted examples: Shigella: (bacillary dysentery) Found in water, milk, salad & vegetables. Symptoms diarrhoea, fever, abdominal pain, vomiting. Onset time 1 – 7 days.	Level 4 (13–15 marks) The candidate gives a comprehensive description of a wide range of bacteria responsible for food poisoning. Ideas will be expressed clearly and fluently in a well-structured manner and will be supported, where appropriate, with relevant examples. Specialist terminology will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling. Level 3 (9–12 marks) The candidate gives a detailed description of bacteria responsible for food poisoning. Ideas will be expressed clearly but may not be fully developed and will be supported with relevant examples. Specialist terminology will be used correctly. There may be occasional errors in spelling punctuation and grammar. Level 2 (5–8 marks) The candidate gives a limited description of bacteria responsible for food poisoning. Ideas will be expressed but may not be fully developed and will be supported with examples which may not be relevant. There will be limited use of specialist terminology. There may be some errors in spelling punctuation and grammar. Level 1 (1–4 marks) The candidate identifies bacteria responsible for food poisoning. Ideas will be poorly expressed or list like. There will be limited if any use of specialist terminology which may not always used appropriately. Errors of grammar, punctuation and spelling may be intrusive. 0 = no response worthy of credit

Question	Answer	Marks		Guidance		
			Content	Levels of response		
	packaging of canned goods. Symptoms; difficulties breathing, swallowing and paralysis, double vision and headaches. Very rare but most cases are fatal. Onset time 12 – 36 hours					
	Bacillus cereus – Vomiting type; Toxic food poisoning. Found in cooked rice. Symptoms; nausea, vomiting, diarrhoea. Spore forming bacteria. Onset time 1 – 5 hours					
	Bacillus cereus – Diarrhoea type; Toxic food poisoning Found in cereals and cereal products, dust and soil. Symptoms; diarrhoea, abdominal pains but rarely vomiting. Spore forming bacteria. Onset time 8 – 24 hours					
	Campylobacter jejuni; Infective food poisoning. Found in raw meat and poultry, animal contamination. Symptoms; often mild but include diarrhoea, headache fever and abdominal pain. The most common cause of food poisoning in the UK. Onset time 1 – 5 days.					

Question	Answer	Marks		Guidance		
			Content	Levels of response		
	E. coli 0157; Infective food poisoning. Found in raw meats, raw poultry, fruit juice, raw vegetables eg mushrooms, untreated milk, water and dairy products. Symptoms; abdominal pain, nausea, diarrhoea, vomiting, kidney failure also causes gastroenteritis and can be fatal. Sometimes called 'Traveller's Diarrhoea'. Onset time 12 – 24 hours/3-4days. Listeria monocytogenes; Infective food poisoning. Found in cook chill foods, bags of salad, untreated dairy foods and pate. Symptoms; like flu and can cause miscarriage, meningitis in severe cases. Most at risk are pregnant women, newborn babies, the sick and elderly. Can grow comfortably in refrigerated temperatures. Onset time 1 – 70 days		Content			

Question	Answer	Marks		Guidance
			Content	Levels of response
4 (a)	Describe the current dietary guidelines to maintain good health. Answers may include: The Eatwell Plate – 33% starch based, 33% fruit & vegetables, 15% dairy, 12% Protein, 7% Fat/ sugar. Choose a variety from each group. Doesn't relate to portion size. Doesn't apply to early years (0-5) Eat meals based on starchy foods. To help fill you up and reduce likelihood of eating too much fat Eat more fruit and vegetables. 5 a day, 80g or a handful. Variety but not potatoes Eat more fish. Two portions a week, one of which should be oily Cut down on saturated fat found in animal products. No more than 11% should come from saturated fat Cut down on sugar to avoid empty calories. Eat less salt. Maximum 6g for adults Drink plenty of fluids to keep you hydrated. Helps to fill you up Do not skip breakfast. Aids metabolism and reduces snacking later in the morning	10	If communication is clear this will help inform the level. Credit will be given for all valid points. For each guideline, further detail should be given, eg fish; 2 portions a week, one of which should be oily.	Level 4 (9–10 marks) The candidate gives a comprehensive description of a wide range of current dietary guidelines to maintain good health. Ideas will be expressed clearly and fluently in a well-structured manner. Specialist terminology will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling. Level 3 (6–8 marks) The candidate gives a detailed description of a range of current dietary guidelines to maintain good health. Ideas will be expressed clearly but may not be fully developed. Specialist terminology will be used correctly. There may be occasional errors in spelling punctuation and grammar. Level 2 (3–5 marks) The candidate gives a limited description of the current dietary guidelines to maintain good health. Ideas will be expressed but may not be fully developed. There will be limited use of specialist terminology. There may be some errors in spelling punctuation and grammar. Level 1 (1–2 marks) The candidate identifies current guidelines with limited links to good health. Ideas will be poorly expressed or list like. There will be limited if any use of specialist terminology which may not always used appropriately. Errors of grammar, punctuation and spelling may be intrusive. 0 = no response worthy of credit

Q	uesti	on		Answer	Marks		Guidance	
						Content	Levels of response	
			•	Energy balance. Maintain a healthy weight Alcohol. Follow government recommendations, 21 units for men and 14 for women per week.				

Question	Answer	Marks	Guidance	
			Content	Levels of response
(b)	Explain how the dietary guidelines can be applied when purchasing and preparing food. Answers may include: Use labelling to inform decisions when shopping eg traffic lights, GDA, nutritional information Eat meals based on starchy foods eg pasta and potatoes. Buy wholegrain cereals eg brown rice, pasta/wholemeal flour, breakfast cereals Plan meals around starchy carbohydrate Add pulses in stews and casseroles Eat more fruit and vegetables/5 a day Buy a variety of fresh, frozen, tinned, dried or juiced Serve larger portions of vegetables with the family meal, add extra veg to meals Buy fruit to eat as a snack/ add to breakfast cereals Incorporate into meals eg add to Bolognese sauce, produce smoothies and soups Eat more fish: Buy a variety of fish eg fresh, frozen and canned	15	If communication is clear this will help inform the level. Credit will be given for all valid points.	Level 4 (13–15 marks) The candidate gives a comprehensive explanation of how the dietary guidelines can be applied when purchasing and preparing food. There will be clear and detailed links applying the dietary guidelines to purchasing and preparing food. Ideas will be expressed clearly and fluently in a well-structured manner and will be supported with relevant and detailed examples. Specialist terminology will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling. Level 3 (9–12 marks) The candidate gives a detailed explanation of how the dietary guidelines can be applied when purchasing and preparing food. There will be links applying the dietary guidelines to purchasing and preparing food. Ideas will be expressed clearly but may not be fully developed and will be supported with relevant examples. Specialist terminology will be used correctly. There may be occasional errors in spelling punctuation and grammar. Level 2 (5–8 marks) The candidate gives a limited explanation of how dietary guidelines can be applied when purchasing and preparing food. There will be limited links applying dietary guidelines to purchasing and preparing food Ideas will be expressed but may not be fully developed and will be supported with examples which may not be relevant. There will be limited use of specialist terminology. There may be some errors in spelling punctuation and grammar.

Question Answer Marks		Marks	Guidance		
			Content	Levels of response	
	 Use part prepared fish for easy cooking eg pre cooked salmon Use tinned fish as a quick snack or for lunch eg in a sandwich Add to stir fries, risottos and kedgeree, fish soup BBQ fish Cut down on saturated fat: Read nutritional labels to identify quantity and type of fat in the product before purchase Choose low fat or fat free versions of food products eg skimmed milk, reduced fat spread Buy leaner cuts of meat Eat more white fish, chicken and exotic meats rather than red meat Trim fat off meat, remove skin from poultry Eat less fried and roasted foods/use sunflower oil for roasting and frying Change the method of cooking to microwaving, dry roasting, dry fry, grilling, steaming or poaching Avoid snacking on food products high in saturated fat. eg pork scratching Use a low salt stock cube instead of meat juices 		Content	Level 1 (1–4 marks) The candidate identifies some ways of applying guidelines when purchasing and preparing food. Ideas will be poorly expressed and there will be limited if any use of specialist terminology which may not always used appropriately. Errors of grammar, punctuation and spelling may be intrusive. 0 = no response worthy of credit	

Question	Answer	Marks	Guidance	
			Content	Levels of response
	Cut down on sugar: Look at the carbohydrate content of food as an indication of sugar content eg cereals, sauces Purchase fruit instead of ready made puddings Try not to add sugar to drinks/foods. Use an alternative eg sweetener Eat fewer cakes, sweets, chocolate and other confectionary items Look for foods that have no added sugar or are sugar free eg soft drinks. Eat less salt: Reduce the amount in cooking eg use herbs and spices to season instead Buy products that show reduced salt content or low sodium. Buy low salt alternatives Avoid buying products preserved in brine Cut down on snacks that are high in salt eg crisps Limit your use of processed food which can be high in salt .eg ready meals Taste food to check the flavour before adding salt		Content	Levels of response

Question	Answer	Marks	Guidance		
			Content	Levels of response	
	 Do not skip breakfast: Buy a wide variety of 'on the go'/ time saving breakfast products if time is short Wholemeal toast or cereal make an easy, quick and healthy breakfast Prepare breakfast in advance eg muffins, granola, porridge Drink plenty of fluids: Refill bottles with tap water which is just as good as bottled water A bottle of water can be carried round during the day at work or 		Contoni		
	school Buy a variety of low sugar juices Serve a meal with a drink Energy balance: Prepare appropriate portion sizes				
	to age and activity levels Alcohol: Purchase lower alcohol or alcohol free products				

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