



GCE

Home Economics (Food, Nutrition and Health)

Unit **G002**: Resource Management

Advanced GCE

Mark Scheme for June 2014

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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
	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
	Unclear
	Benefit of doubt
	Caret sign to show omission
	Not answered question
	Repeat
	Noted but no credit given
	Tick
	Cross
	Level 1
	Level 2
	Level 3
	Level 4
	Vague

Question		Answer	Mark	Guidance
1	(a) (i)	8.1	1	
	(ii)	18.0	1	
	(iii)	One person 60 or over	1	
1	(b)	<p>Can't afford to buy fuel [1]</p> <p>If household needs to spend more than 10 per cent of its income on fuel [1] to maintain an adequate level of warmth [1]</p> <p>Emphasis is on heating the home [1] but also include spending on heating water, lights and appliance usage and cooking costs.[1]</p>	1 2	Accept simplistic answer for ONE mark Must be reference to affordability to award 2 marks
1	(c)	<ul style="list-style-type: none"> • Low income – high unemployment, low wage increases, state pension • Increase in energy prices –inflation, costs more to heat home • The type of fuels used- rising costs of all major types of fuel, causing more incidence of fuel poverty • Energy efficiency of house- if home energy inefficient more likely to be fuel poor • Composition of household- single person household more likely to be fuel poor • Families in rural areas- more likely to be fuel poor • Families in debt- use of pre-payment cards/meters which are more expensive • Rising costs of other resources – insufficient money to pay for fuel/paying for other essentials 	2x1	
1	(d)	<ul style="list-style-type: none"> • Cook in batches [1]reduces oven/hob usage[1] • Keep oven door closed [1] every time you open the door the oven loses heat and requires more energy to get back up to temperature [1]. 	2X2	Responses should describe the way/reason why less energy is used.

Question	Answer	Mark	Guidance
	<ul style="list-style-type: none"> • Put stainless steel skewers through baked potatoes and joints of meat [1] to speed up the cooking process.[1] • Cut food into smaller pieces [1] cooks more quickly [1] • Turn off electric oven ten minutes before the end of the cooking time [1] it will still keep to the same temperature for this time period.[1] • Put just enough water in the pan to cover vegetables [1] quicker [1] • Use saucepans right size for hob [1] energy efficient [1] • Always put lids on pans [1] to keep the heat in [1] • Turn down the ring or burner once the cooking temperature or state is reached [1] simmer food rather than boiling it [1] • Use a steamer to cook foods [1] only one fuel source [1] • Use a pressure cooker [1] It speeds up the cooking process.[1] • Keep hob clean [1] burnt foodstuff absorbs heat making an electric ring less efficient, and hindering heat radiation with gas [1] • Use microwave [1] quick [1] uses less energy [1] • Boiling kettle – just boil sufficient water for needs [1]reducing energy usage [1] • One pot cooking [1] only using one source of fuel [1] • All eating the same meal [1] more energy efficient [1] • All eating at the same time [1] energy saved as not reheating • Appropriate cooking method for type of food [1] more energy efficient • Use a slow cooker [1] lower wattage so less energy used [1] • Use of fan assisted oven [1] set at lower temperature so uses less energy [1] 		

Question		Answer	Mark	Guidance
1	(e)	<ul style="list-style-type: none"> • Batch bake- often cheaper, bake large quantities and freeze small portions • Shop at local markets- often cheaper than supermarkets, quality may vary • Buy supermarket own brands- cheaper. • Check date marks- check for storage conditions and if it can be eaten before it passes the date mark - reduce waste. • Prepare own meals- ready meals expensive, Although single portion ready meals may be cost effective-no need to buy separate ingredients and making a meal from scratch • Buy frozen or tinned foods - cheaper than fresh, longer lasting • Change supermarket to budget brand e.g. Aldi, Lidl- cheaper • Bulk buy/buy large pack – often cheaper • Buy special offers, vouchers, loyalty schemes – only of benefit if it will be used • Shop around or use comparison websites – to obtain best value for money • Online shopping – calculates expenditure, less likely to impulse buy • Plan a menu / write a shopping list – this ensures you buy what you need and avoid waste • Base meals on staple foods – cheap and filling • Use cheaper protein sources – cheaper cuts of meat, eggs, alternative proteins • Buy fruit and vegetables in season/ grow your own - cheaper 	3X2	1 mark for identification 1 mark for explanation Single portion ready meals could include meals on wheels

Question		Answer	Mark	Guidance
1	(f)	<ul style="list-style-type: none"> Important to balance income and expenditure to avoid debt Calculate income and expenditure – money left is disposable income Budget carefully so that expenditure not higher than income Review budget regularly, check bank statements, Spread cost of large bills e.g. energy- pay monthly, set up direct debits to spread costs, plan and check dates so that do not go overdrawn Shop around for credit deals- lowest interest rates Borrow from reputable sources- not door step lenders Avoid high interest lenders e.g. pay day loans Use of interest-free credit for large purchases Plan food shopping carefully-budget Save money each month- for emergencies, check for best interest rates for savings Shop around- find competitive prices e.g. energy provider Reduce transport costs – consider method of transport Use credit card wisely – pay off at end of month Plan leisure activities - Use of vouchers/offer / loyalty cards for leisure activities or find free activities Avoid using credit cards – cash or debit cards easier to track and limit spending 	8	<p>Content</p> <p>Level of Response</p> <p>Level 3 7-8 The candidate is able to demonstrate clear knowledge of how financial planning can reduce the risk of household debt. The explanation will be detailed and will be developed and supported, by the use of subject specific examples. Ideas will be expressed clearly and fluently. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 2 4-6 The candidate is able to demonstrate knowledge of how financial planning can reduce the risk of household debt. The explanation will show understanding. The explanation may not be fully developed and may lack subject specific examples. Ideas will be expressed clearly and fluently. There may be occasional errors of grammar, punctuation and spelling.</p> <p>Level 1 1-3 The candidate is able to demonstrate superficial knowledge of how financial planning can reduce the risk of household debt. The explanation will show very limited understanding. The information may be poorly expressed and errors of grammar, punctuation and spelling will be intrusive.</p> <p>0= no response worthy of credit</p>
				Total 25 marks

Question		Answer	Marks	Guidance	
				Content	Levels of response
2	(a)	<p>Describe the technological advances in cooking equipment.</p> <ul style="list-style-type: none"> • Energy efficient- amount of electricity or water used important • Different features-often designed for speed, ease of cleaning, performance, safety and/or aesthetics of a product (including size-smaller) <p>Microwaves</p> <ul style="list-style-type: none"> • Combination microwaves- microwave and brown/crisp. • Auto-cook/defrost function- senses weight, moisture content, calculates cooking/defrost time • Oven or grill can be set separately to a chosen temperature so can be used in same way as a conventional oven or grill <p>Cookers</p> <ul style="list-style-type: none"> • Auto-timers- control start time, duration and end time • Induction hobs- instant heat, easy to clean, use of magnetised pans • Ceramic / Halogen hobs- instant heat • Catalytic lining which helps keep oven clean/ • Some ovens have a pyrolytic self-cleaning function. The oven heats up to over 4000°C and all the grease and dirt is burnt to ash which is easily wiped out with a damp cloth when the oven has cooled down. • Steam ovens 	10		<p>Level 3 8-10 The candidate is able to describe fully technological advances in cooking equipment. Ideas will be expressed clearly and fluently in a well structured manner and will be supported, where appropriate, with examples. Technical terms will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 2 5-7 The candidate is able to give some descriptions of technological advances in cooking equipment. Some information will be relevant, with some subject specific terminology although some ideas may not be fully developed. There may be some errors in spelling punctuation and grammar</p> <p>Level 1 1-4 The candidate is able to give basic descriptions of the technological advances in cooking equipment. Information will be poorly expressed and there will be limited if any use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>0= no response worthy of credit</p>

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		<ul style="list-style-type: none"> • Breadmakers – whole process carried out within the one container. Timers on bread makers-make bread overnight, variety of different products can be made • Steamers - thermostatically controlled and also have timers - no danger of them boiling dry if left unattended • Contact grills with drip trays to collect the fat that runs off the food. Contact grills with removable dishwasher safe parts. Use of floating hinge to accommodate foods of different thicknesses. • Air fryers- use little if any fat/oil- healthier • Toasters – cool wall, egg attachments • Kettles – cordless, one cup, thermometers on side • Soup maker, cup cake and waffle cooker • Food mixer with heat function • Silicon equipment • Ceramic non-stick pans • Thermospot- Heat indicator on pans. System identifies when pan is pre-heated to the right temperature. 			

Question		Answer	Marks	Guidance	
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2	(b)	<p>Explain how information on the labels of electrical equipment can inform consumer choice.</p> <p>The main labels are:</p> <p>The CE Mark</p> <ul style="list-style-type: none"> • The CE mark is an indication of safety, minimum European legal requirements for health and safety. • Self – certified label, not a guarantee that it meets the highest safety standards <p>The BEAB Mark</p> <ul style="list-style-type: none"> • The BEAB mark is also an indication of the safety of a product. • Products carrying the BEAB mark have been guaranteed as safe by the British Electrotechnical Approvals Board • Unlike the CE mark, BEAB approved products have undergone rigorous testing by independent specialists over and above the minimum legal requirements • Testing includes aspects of safety eg shocks and burns <p>BSI Kitemark</p> <ul style="list-style-type: none"> • An indication of the safety and reliability of a product, eg on fridges, cookers etc • Products have been rigorously tested by the British Standards Institute 	15	<p>Level 4 13-15 The candidate is able to fully explain how information on the labels of electrical equipment can inform consumer choice. Ideas will be expressed clearly and fluently in a well structured manner and will be supported, where appropriate, with examples. Technical terms will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 3 9-12 The candidate is able to explain in some detail how information on the labels of electrical equipment can inform consumer choice. There will be evidence of subject specific terminology. The information will be expressed clearly although some ideas may not be fully developed. There may be occasional errors in spelling punctuation and grammar.</p> <p>Level 2 5-8 The candidate gives some explanations which may lack detail how information on the labels of electrical equipment can inform consumer choice. Some information will be relevant, with some subject specific terminology although not always used appropriately. There may be some</p>	

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		<ul style="list-style-type: none"> Standards are voluntary, and manufacturers must pay for a license to be able to use the kitemark. The product to be tested at regular intervals, so product safe and reliable. BSI is an independent organisation Products are tested for all aspects of safety and reliability eg electrical safety, flammability, strength <p>The European Union Ecolabel</p> <ul style="list-style-type: none"> This label is an indication of the eco – friendliness of a product Voluntary label given to manufacturers of products which meet specified environmental standards, as laid down by the EU. For electrical items e.g. computers & printers, this could include that the product uses less energy, and can easily be recycled. It was started by the EU to encourage manufacturers to make products which are more eco – friendly <p>The European Union energy label</p> <ul style="list-style-type: none"> Gives an indication of the energy efficiency of a product. eg if it uses less energy/water Appliances are rated on a scale of A -G (A being most efficient) for their energy efficiency. 		<p>errors in spelling punctuation and grammar</p> <p>Level 1 1-4</p> <p>The candidate is able to give basic explanations of how information on the labels of electrical equipment can inform consumer choice. Information will be poorly expressed and there will be limited if any use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>0= no response worthy of credit</p>	

Question		Answer	Marks	Guidance	
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		<ul style="list-style-type: none"> Other information can also be given eg the noise levels, the capacity (eg for washing machines) the water consumption (eg for dishwashers). <p>Which?/Good Housekeeping Institute best buys</p> <ul style="list-style-type: none"> Publicly recognised awards that help consumers make informed choices <p>Other Eco labels e.g. Energy Star, Energy Saving Trust</p>			
3	(a)	<p>Compare the advantages and disadvantages of food processors and food mixers.</p> <p>Food processor</p> <p>Advantages</p> <ul style="list-style-type: none"> One machine with different attachments to prepare variety of foods and products Some attachments are dishwasher safe Can liquidise Useful for large quantities Saves time Range of prices to suit budget <p>Disadvantages</p> <ul style="list-style-type: none"> Powerful machines so easy to over process food Sharp blades- dangerous Small parts may be easily lost Space needed for storage 	10		<p>Level 3 8-10 The candidate is able to compare a wide range of advantages and disadvantages of food processors and food mixers. Ideas will be expressed clearly and fluently in a well structured manner and will be supported, where appropriate, with examples. Technical terms will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 2 5-7 The candidate is able to compare some advantages and disadvantages of food processors and food mixers. Some information will be relevant, with some subject specific terminology although some ideas may not be fully developed. There may be some errors in spelling punctuation and grammar</p>

Question		Answer	Marks	Guidance	
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		<ul style="list-style-type: none"> Difficult to be consistent e.g. slicing carrots Can be noisy Fiddly to wash <p>Mixers</p> <p>Hand held</p> <p>Advantages</p> <ul style="list-style-type: none"> Quick Useful for small quantities- ideal for single person Can be used with any container Portable Compact to store Beaters can be put in dishwasher <p>Disadvantages</p> <ul style="list-style-type: none"> Only performs basic tasks e.g. whisking Not very powerful Separate goblet needed to liquidise Have to hold on to it whilst doing the task Care needed to avoid splashing Can be noisy <p>Tabletop</p> <p>Advantages</p> <ul style="list-style-type: none"> Saves time, can get on with other tasks whilst it is mixing Powerful Range of functions and attachments e.g. dough hook for kneading 		<p>Level 1 1-4 The candidate is only able to describe a limited range of the advantages and disadvantages of different types of food processors and mixers. Information will be poorly expressed and there will be limited if any use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>0= no response worthy of credit</p>	

Question		Answer	Marks	Guidance	
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		<ul style="list-style-type: none"> • Useful for big family or where a lot of cooking is done • Beaters can be put in dishwasher • Available in a range of colours to match kitchen <p>Disadvantages</p> <ul style="list-style-type: none"> • Expensive • Take up lot of space • Heavy to lift 			
3	(b)	<p>Explain how working families can manage their time effectively when preparing and cooking meals.</p> <p>Microwaves</p> <ul style="list-style-type: none"> • Quick method of cooking • Easy to clean • Can be used for defrosting • Save on washing up- benefits family • Can be used for reheating -good if family eating at different times <p>Steamers</p> <ul style="list-style-type: none"> • Can cook a large variety of foods together at one time e.g. fish, rice and vegetables- saves washing up <p>Slow cookers</p> <ul style="list-style-type: none"> • Can be used to prepare meals and left to cook while out- ready on return • Cooked in one pot- saves washing up/time 	15	<p>Level 4 13-15 The candidate is able to explain fully how working families can manage their time effectively when preparing and cooking meals Ideas will be expressed clearly and fluently in a well structured manner and will be supported, where appropriate, with examples. Technical terms will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 3 9-12 The candidate is able to explain in some detail how working families can manage their time effectively when preparing and cooking meals. The information will be expressed clearly although some ideas may not be fully developed. There will be some use of specialist terminology. There may be</p>	

Question		Answer	Marks	Guidance	
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		<p>Use of labour saving equipment</p> <ul style="list-style-type: none"> • E.g. food processor for preparation of vegetables • Blender to make smoothie or blend soup • Dishwasher to save time washing up • Boil water in kettle rather than on hotplate for cooking staple foods and vegetables <p>Use of ready prepared components /ready prepared meals- saves time</p> <p>Other ways to manage time effectively</p> <ul style="list-style-type: none"> • Batch bake • Use of leftovers • Prepare and cook quick and easy meals e.g. stir fry • Menu planning • Division of labour • Clean up as go along • Prepare same meal for all family members • Prepare food in advance e.g. packed lunches for the next day 		<p>occasional errors of grammar, punctuation and spelling.</p> <p>Level 2 5-8</p> <p>The candidate is able to give superficial explanations of how working families can manage their time effectively when preparing and cooking meals. Some information will be relevant, with some subject specific terminology although not always used appropriately. There may be some errors in spelling punctuation and grammar.</p> <p>Level 1 1-4</p> <p>The candidate is able to give very limited explanations of how working families can manage their time effectively when preparing and cooking meals. Information will be poorly expressed and there will be limited if any use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>0= no response worthy of credit</p>	

Question		Answer	Marks	Guidance	
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4	(a)	<p>Describe the role of the Food Standards Agency.</p> <p>FSA is an independent organisation. Its main aim is to protect public health in relation to food in the UK.</p> <p>Foods produced or sold in the UK are safe to eat</p> <ul style="list-style-type: none"> • reduce foodborne disease • using a targeted approach tackling campylobacter in chicken priority • improve intelligence on global food chains e.g. chemical contamination <p>Imported food is safe to eat</p> <ul style="list-style-type: none"> • work internationally to reduce risks from food and feed originating in non-EU countries • ensure risk based target checks at port and local authority monitoring of imports throughout the food chain <p>Food producers and caterers give priority to consumer interests in relation to food</p> <ul style="list-style-type: none"> • increase the provision of information about allergens, including in catering establishments • continue to achieve reductions in levels of saturated fat, salt and calories in food products (just Scotland & Northern Ireland) 	10	<p>Level 3 8-10 The candidate is able to describe in detail the role of the Food Standards Agency. Ideas will be expressed clearly and fluently in a well structured manner and will be supported, where appropriate, with examples. Technical terms will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 2 5-7 The candidate is able to give some descriptions of the role of the Food Standards Agency. Some information will be relevant, with some subject specific terminology although some ideas may not be fully developed. There may be some errors in spelling punctuation and grammar.</p> <p>Level 1 1-4 The candidate is able to describe superficially the role of the Food Standards Agency. Information will be poorly expressed and there will be limited if any use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>0= no response worthy of credit</p>	

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<ul style="list-style-type: none"> encourage the development, promotion and availability of healthier options when shopping and eating out (just Scotland & Northern Ireland) make sure that portion sizes appropriate for a healthy diet are available and promoted (just Scotland & Northern Ireland) <p>Consumers have the information and understanding they need to make informed choices about where and what they eat</p> <ul style="list-style-type: none"> Improve public awareness about good food hygiene practice at home Increase provision of information to consumers on hygiene standards on food premises – where to eat and shop Improve public awareness about healthy eating (just Scotland & Northern Ireland) <p>Consumers are protected by regulation and enforcement as the FSA work with businesses</p> <p>The work of the FSA includes:-</p> <ul style="list-style-type: none"> Policy advice and legislation on standards Research and surveillance e.g. farms and slaughter houses 			

Question		Answer	Marks	Guidance	
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		<ul style="list-style-type: none"> General food law enforcement – support EHO Farming - preventing contaminated food entering the food chain and monitoring animal food Assessing and monitoring novel foods and food additives Food emergencies e.g. Horse meat 			
4	(b)	<p>Describe the Food Hygiene Regulations and standards that must be implemented in the catering industry in the United Kingdom.</p> <p>The Food Hygiene Regulations 2006</p> <ul style="list-style-type: none"> These regulations apply to food businesses and cover all activities involving food The whole food chain is covered from farm to fork improving traceability in the event of a food poisoning outbreak The responsibilities of food companies regarding food hygiene are clearly set out A food safety management system such as HACCP proves 'due diligence' Monitoring of HACCP 	15	<p>Level 4 13-15 The candidate is able to describe fully the Food Hygiene regulations and standards that must be implemented in the catering industry in the United Kingdom. Ideas will be expressed clearly and fluently in a well structured manner and will be supported, where appropriate, with examples. Technical terms will be used correctly and appropriately. There will be few if any errors of grammar, punctuation and spelling.</p> <p>Level 3 9-12 The candidate is able to describe a wide range of the Food Hygiene regulations and standards that must be implemented in the catering industry in the United Kingdom. The information will be expressed clearly although some ideas may not be fully developed. There will be some use of specialist</p>	

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<p>Includes</p> <ul style="list-style-type: none"> • Cleaning schedules • Staff training, keeping records and recording illnesses • Pest control – contract in place • Waste disposal – contract in place • Food temperature log book – Hot holding temperature above 63°C, Food cooked to 75°C, fridge below 0-5°C. Record action taken • List of suppliers – traceability • Personal hygiene – hand washing procedures, appropriate clothing • The labelling advertising and display of food must not mislead consumers • Food businesses must withdraw food which does not meet food safety requirements 		<p>terminology. There may be occasional errors of grammar, punctuation and spelling.</p> <p>Level 2 5-8 The candidate is able to describe some of the Food Hygiene regulations and standards that must be implemented in the catering industry in the United Kingdom Some information will be relevant, with some subject specific terminology although not always used appropriately. There may be some errors in spelling punctuation and grammar.</p> <p>Level 1 1-4 The candidate is able to give a limited description of the Food Hygiene regulations and standards that must be implemented in the catering industry in the United Kingdom Information will be poorly expressed and there will be limited if any use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>0= no response worthy of credit</p>	

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