

Home Economics (Food and Nutrition)

General Certificate of Secondary Education **1973/01**

Paper 1

Mark Scheme for June 2010

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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.

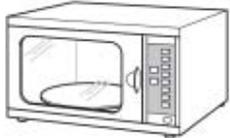
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Question	Answer			Mark
1 (a) (b)				
	Tool/Equipment	(a) Name	(b) Task that it can perform	
		Food processor	Rubbing fat into flour	
		(Lemon) squeezer/juicer/juice strainer	Removing juice/juice an orange/squeeze lemon	[2]
		(Balloon) whisk	Aerating mixtures/whisking, mixing, beating or blending cream, egg/making mixtures smooth/getting rid of lumps eg sauces, gravy/getting an even texture in a mixture	[2]
		Pastry/egg/oil/food/water brush	Glazing pies/glazing cakes/brushing pastries with egg, milk, water/cleaning a lemon grater/removing excess flour from pastry when rolling out/greasing tins	[2]
		Bun tray/patty tin/cake tray/muffin tray/cupcake tray	Baking cakes/put cakes in/muffins/tarts/Yorkshire puddings/mince pies/individual pies/keep cakes shape or structure	[2]
		Microwave	Reheating/cooking/defrosting/melting fats or chocolate/making tea or coffee/warming or heating	[2]

Question	Answer	Mark				
1 (c) (i)	<p>Any two from</p> <p>Safe to eat/destroys bacteria microorganisms or germs/prevents food poisoning Makes food last longer/short term storage Improves flavour/taste Improves colour Improves appeal/appetising/attractive Helps digestion Improves texture Makes it easier to eat/edible (not so it can be eaten) Provides variety in the diet (eg hot foods when temperature cold) Some foods need to be cooked eg sauces, cakes</p>	[2]				
(ii)	Answers must be different for each food		[1]			
	Food	Changes that take place when cooked		[1]		
	<i>Cheese on toast</i>	<i>Cheese melts</i>			[1]	
	Boiling an egg	<p>Any one from: White solidifies before yolk Can soft or hard boil Taste develops Change in colour Turns from liquid to solid Egg hardens</p>				[1]
	Baking a cake	<p>Any one from: Texture change Taste change Crisp on outside, soft inside Change in colour/turns brown Cake rises/expands/gets bigger Cake sets/becomes firm</p>				
Making a sauce	<p>Any one from: Starch granules absorb water and swell when heated. Some starch is released as heat is increased. Colour change Taste change-raw to cooked/tastes better Texture change Get a smooth blend/roux forms Gelatinisation softens and swells Thickens (when cooked)</p>	[1]				
Total:			[15]			

Question	Answer	Mark												
2 (a)	<p>1 mark for white fish 1 mark for shellfish 2 marks for correct examples of each group Accept correct examples of white and shellfish even if group is not given. Accept any correct examples given Examples of fish not exhaustive</p> <table border="1" data-bbox="387 459 1305 763"> <thead> <tr> <th data-bbox="387 459 571 521">GROUP OF FISH</th> <th data-bbox="579 459 815 521">EXAMPLE 1</th> <th data-bbox="823 459 1305 521">EXAMPLE 2</th> </tr> </thead> <tbody> <tr> <td data-bbox="387 521 571 562"><i>Oily</i></td> <td data-bbox="579 521 815 562"><i>Herring</i></td> <td data-bbox="823 521 1305 562"><i>Salmon</i></td> </tr> <tr> <td data-bbox="387 562 571 663">Shellfish</td> <td data-bbox="579 562 815 663">Crab, prawn, lobster, shrimp</td> <td data-bbox="823 562 1305 663">Scallop, mussels, winkles, whelks, oyster, langoustine, cockles, squid, octopus</td> </tr> <tr> <td data-bbox="387 663 571 763">White</td> <td data-bbox="579 663 815 763">Plaice, haddock, coley, hake, shark</td> <td data-bbox="823 663 1305 763">Cod, skate, whiting, halibut, sole, pollack, snapper, monkfish, tilapia</td> </tr> </tbody> </table>	GROUP OF FISH	EXAMPLE 1	EXAMPLE 2	<i>Oily</i>	<i>Herring</i>	<i>Salmon</i>	Shellfish	Crab, prawn, lobster, shrimp	Scallop, mussels, winkles, whelks, oyster, langoustine, cockles, squid, octopus	White	Plaice, haddock, coley, hake, shark	Cod, skate, whiting, halibut, sole, pollack, snapper, monkfish, tilapia	[6]
GROUP OF FISH	EXAMPLE 1	EXAMPLE 2												
<i>Oily</i>	<i>Herring</i>	<i>Salmon</i>												
Shellfish	Crab, prawn, lobster, shrimp	Scallop, mussels, winkles, whelks, oyster, langoustine, cockles, squid, octopus												
White	Plaice, haddock, coley, hake, shark	Cod, skate, whiting, halibut, sole, pollack, snapper, monkfish, tilapia												
(b)	<p>Any two from: Protein Vitamin A Vitamin D Omega 3 or 6 fatty acids/fat/oil Calcium (if bones are eaten) Phosphorus (if bones are eaten) Selenium Iodine Fluoride Potassium Sodium</p>	[2]												
(c)	<p>Any three from: Poaching/boiling Grilling/barbeque Frying Steaming Baking/roasting/cook in the oven Microwaving Smoking</p>	[3]												
(d)	<p>Any four from: Tasting samples Money off coupons Special offers/promotions BOGOF's In-store recipes/magazines Knowledgeable/skilled staff Specialist fish counters with different varieties of fish available Posters/leaflets/adverts Attractive display No strong fishy smells Cooking demonstrations/explanations Nutritional advantages explained simply Celebrity chef promoting both fish and supermarket (ie Jamie Oliver/Sainsburys) Adverts on TV/magazines/newspapers</p>	[4]												
	Total:	[15]												

Question	Answer	Mark	
3 (a)	Skinless chicken	[1]	
(b)	Carbohydrate	[1]	
(c)	Minced beef	[1]	
(d)	Any two from Growth, repair, energy, maintenance	[2]	
(e)	Any two from TVP, fish, cheese, eggs, milk, soya, quinoa Accept dairy products but only once Accept examples but only once	[2]	
(f)	Any two from: Peas, beans, lentils, nuts, rice, wheat, cereals, pasta eg noodles, chick peas or any named example, bread, millet, oats, seeds Accept pulses but do not credit any other named pulse vegetables	[2]	
(g)	Tofu is soya bean curd	[1]	
(h)	Quorn is mycoprotein mixed with egg white and flavourings/made from fungus	[1]	
(i)	Any four from: Aesthetic/preference – some people find the smell or taste of meat repulsive Economy Religion Peer pressure Conscience/moral reasons/ethical reasons Health/allergies Taste Environmental concerns/ecology Upbringing- family may be vegetarian	[4]	
(j)	A strict vegetarian Someone who eats no animal and dairy products at all Only eat plant foods	[2]	
(k)	Original <i>Cows milk:</i> <i>Butter:</i>	Alternative Soya milk, rice milk, oat milk Vegetable spread, sunflower spread, Soya spread, olive oil spread (Olivio) Do not accept margarine	
(l)	Any one from: Lacto- vegetarian(no meat, fish or eggs) Pesco-vegetarian(no meat or poultry) Ovo-lacto vegetarian(no meat, fish) Demi-vegetarian(no meat) Fruitarian(no foods of animal origin)	[1]	
	Total:	[20]	

Question	Answer	Mark
4 (a)	<p>Any four from: Base your meals on starchy foods Eat lots of fruit and veg/5-a-day Eat more fish Cut down on (saturated) fat – 95g for men, 70g for women and 67.8g for children Cut down on sugar Try to eat less salt – no more than 6g a day Get active and try to be a healthy weight/exercise Drink plenty of water Don't skip breakfast/3 meals a day Eat more/increase fibre/NSP Cut out foods with high additions of additives Base your meals on the Eat Well plate Drink less alcohol</p>	[4]
(b)	<p>A well-balanced diet includes food from some of each of the five main food/nutrient groups in the correct proportion.</p> <p>These are</p> <ul style="list-style-type: none"> • Bread, cereals (including breakfast cereals) and potatoes (starchy foods) • Fruit (including fresh fruit juice) and vegetables • Meat and fish • Milk and dairy foods • Fat and sugar • Fibre <p>For two marks both correct proportions and food groups are required</p>	[2]
(c)	<p>Reasons for choice: Lower in fat Lower in sugar/no added sugar/intrinsic in fruit NSP/Fibre. Fruits/jacket potatoes/sweet corn Examples of cooking methods/foods that follow dietary guidelines eg jacket potato instead of chips 5-a-day/vitamins and minerals in salad and fruit More starchy foods/slow releasing energy Low in salt, a little in tuna Advised to eat more fish Advised to drink more water Balanced meal/follows Eat Well plate</p> <p>NOT healthy Candidates must not simply repeat/quote the menu</p>	[5]

Question	Answer	Mark
(d)	<p>Any five points from:</p> <ul style="list-style-type: none"> Costs Colour/appearance Taste Texture Likes and dislikes/suits everyone Time of year Foods available/shops available What have they already eaten that day Skills of the cook Equipment available Time available to prepare meal Number of people catering for/portion sizes Special needs Allergies/health issues Age of people eating meal Variety of foods/meals 	[5]
(e)	<p>Any four from:</p> <ul style="list-style-type: none"> Posters/leaflets displayed throughout school Change to vending machines- from 'junk' to healthy options/healthy food on sale Chips restricted on menus Talks Teaching Water available/water fountain Fresh fruit available Breakfast clubs Advice in guidelines/letters to parents Parent teacher associations Training of school dinner ladies – NVQ's By providing a healthy school meal with guidance on choice Ideas for parents/students on healthy lunch box Healthy tasters Encouragement of extra exercise 	[4]
Total:		[20]

Question	Answer	Mark
5 (a) (i)	11510 kJ – male 8830 kJ – female	[1] [1]
(ii)	Men generally have a larger body size Have a higher metabolic rate They often have more physical jobs	[2]
(iii)	Older people generally less active Teenagers are more active Energy needed for growth in young people but older people have stopped growing	[1]
(b)	Put on weight/obesity/excess energy is stored as body fat	[1]
(c)	Any two from: Basic minimum calorie requirement needed to sustain life in a resting individual Number of calories burnt if you slept all day The energy needed when the body is not moving about The amount of energy needed when the body is completely at rest	[2]
(d)	Any two from: Proteins Carbohydrates Fats Must name nutrients and not give examples of foods	[2]
(e)	Any three from: Activities (accept one example only) At rest (accept one example only) Growth Metabolism Exercise Pregnancy Breast feeding Muscles/movement Maintain normal body temperature Body's function – heartbeat, breathing – at rest Tissue repair Concentration/brain function/not tired	[3]
(f)	Any two from: Children/0-12 years Teenagers/13-19 years Pregnant/breast feeding women Athletes People doing heavy manual work	[2]
	Total:	[15]

Question	Answer	Mark
6	<p>Buying Fresh fruit and veg.</p> <ul style="list-style-type: none"> • No obvious signs of damage, check for mould, no bruising, no unpleasant smell, wilting, good colour, no excess soil, even shape and size, firm not soft and spongy, in season so often cheaper, clean, reliable source, Fairtrade, food miles, clean surroundings, organic, slightly under ripe to last longer <p>Raw meat</p> <ul style="list-style-type: none"> • Good colour (deep red for beef, pale pink for pork and pinkish red for lamb), no unpleasant smell, no excess fat, fat is firm, no juices running from meat, if in packaging check not torn or leaking, quality standard mark, in date/good expiry date for wrapped, raw meat, reliable source, clean surroundings, origin, food miles, organic <p>Cook/chill ready meal</p> <ul style="list-style-type: none"> • In date, packaging intact, stored at correct temperature, reliable source, clean surroundings, check labelling, check storage conditions required <p>Storage Fresh fruit and veg</p> <ul style="list-style-type: none"> • At correct temperature, cool dry dark place, ventilated, remove from polythene (sweats), green veg should be stored in sealed container in refrigerator temps 0°C - 5°C, use as soon as possible, some fruits suffer from chill injury so store at room temperature, some fruits make others deteriorate so store separately eg bananas <p>Raw meat</p> <ul style="list-style-type: none"> • In refrigerator temps 0°C - 5°C, covered, clean sealed container, on bottom shelf of fridge, away from cooked products, mustn't be allowed to drip or touch other foods, follow any instructions on the label, check use by dates • Freeze it if not frozen before temps -18°C to -25°C, covered, labelled, dated, appropriate packaging <p>Cook/chill ready meal</p> <ul style="list-style-type: none"> • In refrigerator temps 0°C - 5°C, check use by date, follow storage instructions on packaging • Freeze it if not frozen before temps -18°C to -25°C, covered, labelled, dated, appropriate packaging <p>A HIGH level of response 12-15 marks Both parts of the question will have been considered in depth. Information will be specific to the buying and storage of fresh fruit and vegetables, raw meat and a cook/chill product with sound recall and application of knowledge. A range of specialist terms used.</p> <p>A MID level of response 7-11 Both parts of the question will have been considered but responses may be superficial and lacking depth. Information will be reasonably well organised but may be factual recall. The candidate uses some specialist terms.</p>	

Question	Answer	Mark
	<p>A LOW level of response 0-6</p> <p>All aspects of the question may not have been covered. Some obvious general facts will be given. Information may be muddled and not used to support points made. The candidate uses few, if any, specialist terms. Candidates with one two word answers in a list cannot achieve a high level response.</p>	
	Total:	[15]

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