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# **GCSE MARKING SCHEME**

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**SUMMER 2016**

**HOME ECONOMICS - FOOD AND NUTRITION  
4301/01**

## **INTRODUCTION**

This marking scheme was used by WJEC for the 2016 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

**GCSE HOME ECONOMICS - FOOD AND NUTRITION**  
**SUMMER 2016 MARK SCHEME**

Q.1	Award <b>1 mark</b> for <b>each</b> correct response  (ii) and (iii)	[2]
Q.2	Award <b>1 mark</b> for <b>each</b> correct response  (a) True (b) True (c) False	[3]
Q.3	(a) Award <b>1 mark</b> for <b>each</b> correct response  (i) Blender (ii) Electric whisk (iii) Contact grill	[3]
	(b) Award <b>1 mark</b> for <b>each</b> correct response  (i) -18 – -24 °C (ii) 0 – 5 °C Accept any temperature in the range. Accept correct temperature without the °C	[2]
Q.4	(a) Award up to <b>2 marks</b> for a detailed response.  Likely answers may include:  <ul style="list-style-type: none"><li>• Fats are solid at room temperature, oils are liquid at room temperature – award only 1 mark if no reference to room temperature</li><li>• Fats are more saturated (more number of single bonds between its carbon atoms) compared to oils which are mostly unsaturated</li><li>• Fats are generally an animal product whereas oils are often a plant derived product</li></ul>	[2]

(b)

[4]

Award **1 mark each** for the correct identification of fat and **1 mark each** for correct use in food preparation

Any two from:

- Butter – used in baking, added to sauces, on toast/in sandwiches, frying
- Margarine – used in baking, spreading
- Lard – pastry making, frying
- Oil – vegetable, olive, sunflower, rapeseed, groundnut, rice oil – frying, roasting, baking, dressings
- Reduced fat spreads – used for spreading
- Solid vegetable fat/white fat – pastry, baking
- Goose/duck fat – roasting
- Coconut oil
- Ghee/clarified butter
- Use – accept greasing
- Accept reference to spray oil 'Frylight'
- Specific to food preparation NO mark for flavour, taste

NO mark for just 'oil' – must specify type

Q.5 (a) Award **1 mark** for a correct response [1]  
 carbohydrate/starch

(b) [6]  
 Award **1 mark each** for the identification of appropriate cooking methods.  
 Award **1 mark** for correct advantage and **1 mark** for correct disadvantage for each method.

Method	Advantage	Disadvantage
Boiling	Easy Convenient for many households Water can be used for stocks, soups No fat	Loss of water soluble vitamins Can over boil causing spillage Can damage structure of potato (mushy)
Steaming	No contact with water to maintaining vitamins Timer function Easy	Can take longer to cook
Baking	Keeps skin on for dietary fibre Easy, little equipment needed Can be done in microwave prior- combination cooking – shorter cooking time	Long cooking time
Roasting	Crispy texture Can be cooked with a roast meat Adds flavour	Absorbs fat/greasy
Frying	Crispy texture Fast cooking, chipped potatoes can keep 60-70% of vitamin C. Adds flavour	Absorbs fat/greasy, higher calories
Microwave	Quick, less energy used Easy Not many nutrients lost	Uneven cooking Dry

Q.5 (c)

[4]

**0-1 mark** for a basic response with very little reference to the nutritional value of potatoes.

**2-3 marks** for a good response which makes reference to the nutritional value of potatoes. Maximum 2 marks for a list of nutrients.

**4 marks** for an excellent response which shows thorough understanding of the nutritional benefits of the use of potatoes in the diet.

Likely answers may include:

- high in carbohydrates, starch, slow release complex carbohydrate
- provides vitamin C
- low in calories
- high fibre (reference to skin)
- Vitamin B6
- Thiamin
- credit relevant explanation of **nutritional** benefit
- credit reference to Glycaemic Index

Q.6 (a)

Award **1 mark** for a correct function for each ingredient:

[4]

Ingredient	Function
Sugar	(i) Any one from: Sweetens, aerates, browns, adds flavour, preserves
Margarine/Butter	(ii) Any one from: Aerates, binds, adds moisture, adds flavour, aids browning, improves texture.
Flour	(iii) Any one from: Stabilises, helps cake to rise, bulk
Eggs	(iv) Any one from: Aerates, adds moisture, setting, stabilises, adds colour, solidify/set/coagulate

(b) Award **1 mark** for a correct response

[1]

Any one from:

Baking powder/soda  
Bicarbonate of soda (cream of tartar)  
Self-raising flour

Q.6 (c)

[6]

**0-2 marks** A basic response which outlines briefly how to make small cakes.

**3-4 marks** A response which describes most of the stages of cake making. Writing is structured, fit for purpose, and conveys meaning. Some specialist vocabulary is used.

**5-6 marks** An excellent response which explains the main stages of cake making in a logical order. Writing is well structured, fit for purpose, clearly expressed. Specialist vocabulary is used accurately.

Credit responses which make reference to either creaming or all-in-one methods.

Likely answers may include:

- Correct weighing and measuring
- Preheating oven
- Cream sugar and fat first to trap air, until light and fluffy either by hand with wooden spoon or use of electric whisk/mixer
- Slowly adding eggs, beating well to avoid curdling the mixture
- Sieve flour and any baking powder
- Fold in using spatula/large spoon (keeping mixture light and fluffy)
- Dropping consistency/adding water or milk
- Use of soft margarine in all in one method
- Divide evenly into cupcake cases
- Bake until lightly golden, firm and springy to touch
- Not opening oven too soon/often to avoid sinking

Q.7 (a)

[4]

**0-2 marks** for a brief response which shows a limited understanding of why people buy organic foods.

**3-4 marks** for a response which shows a clear understanding of why people buy organic foods, examples may be given.

Likely answers may include:

- Less pesticides, chemicals and additives in food
- Claims to be more nutritious/healthier
- Tastes better, e.g. apples/carrots taste sweeter
- Better for the environment
- More sustainable method
- Trend/fashion
- Animal welfare/less intensive
- Advertising
- Credit reference to local food producer, supporting local producers
- Reduces carbon footprint and impact on environment

Q.7 (b)

[6]

**0-2 marks** A response which shows a limited understanding of ways to shop for food. Answer may resemble a list.

**3-4 marks** A good response which shows understanding of several ways of shopping for food. Writing conveys meaning with some use of specialist vocabulary.

**5-6 marks** An excellent response clearly indicating an understanding of a wide range of different ways in which people can shop for food. Writing is structured, fit for purpose, reasoned and clearly expressed. Specialist vocabulary is correct.

Likely answers may include:

- Supermarkets, large selection of shops and products
- On line shopping, easier, convenient, delivery, click and collect, extra cost of delivery, unable to check dates
- Local markets, fresh produce can be cheaper
- Local farm shops and stalls, seasonal foods
- Smaller specialist shops, e.g. butchers, green grocers, bakery
- Fruit and vegetable box schemes
- Bulk shopping/cash and carry, e.g. Costco
- Frozen foods stores, e.g. Farm Foods, Iceland

Maximum 4 marks if only 2 different ways have been discussed in detail

Q.8 (a) Award **1 mark** for **each** correct response

[3]

Any 3 from:

- Breaking the fast, wakes up the metabolism and kick starts the day
- Provides energy for the day ahead
- Helps to maintain weight and keeps you feeling fuller for longer, prevents snacking on unhealthy snacks
- Reduce obesity, heart problems and high blood pressure
- Helps concentration, restores glucose levels
- Opportunity to eat wholegrains and increase dietary fibre e.g. breakfast cereals
- Cereals are a good source of calcium, iron, B vitamins, protein and fibre
- Specific reference to carbohydrate based foods to provide energy
- Credit reference to fruit and nutritional reason is given



Q.8 (b)

[4]

**0-2 marks** A limited response which identifies breakfast products, possibly a list.

**3-4 marks** A good response which covers a range of products.

Likely answers may include:

- Cereal products suitable for all ages. Examples can be high in sugar and calories
- Healthy cereal options, e.g. 'Special K' lower in calories
- Breakfast/cereal bars, easy to eat on the go, individually wrapped
- Porridge sachets and pots just add water, easy to eat at work or school
- Yogurt and cereal portions
- Breakfast drinks, e.g. Weetabix breakfast drink
- Baked foods, e.g. breakfast muffins
- Reference to fortified breakfast cereals and nutritional benefit of these products

Q.9 (a)

(i) Award **1 mark** for a correct response

[1]

July-September

(ii) Award **1 mark** for a correct response

[1]

Any one from:

- Higher temperatures
- More BBQ cooking – poor hygiene, poor cooking
- Higher consumption of chilled foods left at room temperature

(b) Award **1 mark** for **each** correct response

[2]

Any two from:

- Babies, small children
- Pregnant women
- Elderly
- Ill/convalescing

**0-3 marks** A basic response, which identifies general food safety points, possibly a list. Writing conveys some reasoning although errors and poor expression hamper communication. Little or no use of specialist vocabulary.

**4-6 marks** A response which shows some knowledge and understanding to explain how to keep the food safe in at least two of the three areas. Writing is structured to communicate meaning clearly and contains relatively few errors. The use of specialist vocabulary is evident.

**7-9 marks** A response which shows thorough knowledge and understanding to discuss how to keep the specified food safe in all three areas. Writing is well-structured, fit for purpose, clearly expressed and error-free. Specialist vocabulary is used appropriately.

Likely answers may include:

- Ensure food is stored correctly before preparation and cooking, avoid food temperature rising into the danger zone 5-63°C
- Personal hygiene, hands washed, clean work surfaces and equipment, hair tied back
- Cooking food (chicken) to above 72°C for 2 minutes, using a temperature probe to check temperature of chicken and sausage rolls
- Avoid cross contamination of cooked/raw foods
- Use colour coded equipment
- Frequent hand washing
- Allow all foods to cool before placing in refrigerator
- Cover all foods
- If reheating the foods ensure temperature is checked
- Correct storage of cooked and raw foods in the refrigerator (cooked above raw foods)
- Avoid keeping food out of the refrigerator for too long
- Serving food using utensils
- Avoid leaving food uncovered and at room temperature
- Personal hygiene
- Holding temperature of food Max 4 hours for cold buffet  
Max 2 hours for hot buffet

Q.10 (a) (i)

[6]

**0-2 marks** for one main health concern, or a weak response with errors and/or poor expression.

**3-4 marks** for a list/fairly good response with some references to the health risk. An attempt to identify more than one health issues around obesity. Writing is structured to communicate meaning clearly and contains relatively few errors. The use of some specialist vocabulary is evident.

**5-6 marks** for a comprehensive/detailed response with 3-4 sound reasons to clarify health issues around obesity. Responses are clearly expressed and are mainly error free. The use of specialist vocabulary is evident.

Likely answers may include:

- Increased risk of coronary heart disease (CHD)
- Diabetes
- Some forms of cancer
- High blood pressure
- Higher cholesterol
- Strokes
- Arthritis/osteoarthritis
- Skin rashes and infections
- Breathing difficulties (the weight on the chest)
- Psychological issues
- Low self esteem
- Depression
- Breathlessness
- Difficulty doing physical activity

Q.10 (a)  
(Cont'd)

(ii)

[6]

**0-2 marks** A list of ways to reduce food intake. A weak response with errors and/or poor expression.

**3-4 marks** A response which shows understanding of how to reduce obesity with some reference to patterns of 'healthy eating'. Relatively few errors with some attempt to discuss.

**5-6 marks** A comprehensive response with sound discussion of ways people can manage their food intake to reduce obesity. Responses are clearly expressed and are mainly error free.

Likely answers may include:

- Follow a balanced diet
- Correct portion sizes from correct section of the eatwell plate
- Increase intake of protein rich foods to help feeling full – avoid too much starchy foods as can turn to glycogen if not used as energy and then turn to fat
- Avoid snacking on high calorie foods
- Swap full fat for a lower fat version
- Include more wholegrain at meal times
- Eat more fruit and vegetables (5 a day)
- Avoid fast food and takeaways, cook more at home using fresh ingredients
- Change cooking methods (grill instead of fry)
- Drink water or low sugar drinks
- Eat leaner cuts of meat/remove any visible fat
- Eat fish more often – white and oily varieties
- Portion control
- Establishing good eating patterns
- The correct combination of nutrients
- Energy balance
- Reducing/avoiding fats and sugars
- Eating fewer processed food
- Increasing dietary fibre
- Less snacking
- Eating breakfast
- Establishing regular mealtimes
- Use of apps/websites to monitor calorie/food intake

Q.10 (b) (i)  
(Cont'd)

[6]

**0-2 marks** A weak response which shows a basic understanding of the use of multicultural foods.

**3-4 marks** for a good response with some references to the reasons for the popularity of multicultural foods. Writing is structured to communicate meaning and contains relatively few errors. The use of some specialist vocabulary is evident.

**5-6 marks** for a comprehensive/detailed response which explains sound reasons for the popularity of multicultural foods. Responses show clear expression and are mainly error free. The use of specialist vocabulary is evident.

Likely answers may include:

- Travel and holidays abroad
- Experiencing new flavours and replicating it at home
- Exposure of cooking TV programmes and travel shows encourages people to try new foods
- Large selection available of ready-made foods in supermarkets
- Increasing number of food outlets offering wider range of foods from around the world
- Greater percentage of ethnic minorities in Britain/children in school canteens experience catered foods
- Access to internet and recipes
- Food magazines – Good Food/Olive, etc.

Q.10 (b) (ii)  
(Cont'd)

[6]

**0-2 marks** A list of available foods with little reference to their use in the preparation of meals.

**3-4 marks** A response that describes the types of ingredients/foods available to recreate foods at home. Writing is structured to communicate meaning clearly and contains relatively few errors.

**5-6 marks** A comprehensive response with detailed discussion of types of ingredients/foods available with suggestions of how they may be used in the preparation of meals at home. Responses show clear expression and are mainly error free. The use of specialist vocabulary is evident.

Likely answers may include:

- Takeaways Indian
- Chinese
- Mexican fajita kits, spice kits
- Readymade cook chill meals
- Build your own pizzas
- Pasta and sauces, risotto packs
- Spice kits for meats, fish and vegetables
- Flavoured breads
- Spanish tapas
- Moroccan tagines and dips
- American style foods, burgers, filled potato skins
- Sharing platters
- Flavoured meats
- Flavoured oils
- Meal deals with accompaniments