

Principles of food safety

Below are two practice questions; the first question shows students responses and examiner feedback; the second question is for you to try yourself.

Chapter 6: Practice question 1 (with student responses and examiner feedback)



This question is about prevention of cross-contamination of food. Explain how to prevent cross contamination when preparing food. (6 marks)

Responses

The following responses were provided by students. The level and detail within the response increases. More examples, with reasons, have been provided that allow students to achieve higher marks. The use of subject-specific language shows more informed understanding of the subject content.

Basic level response

Food safety is very important; when food is prepared you must make sure everything is clean, especially your hands. Bacteria from food can easily pass from one food to another so keep chopping boards clean. Chicken is a high-risk food – it has to be kept at the bottom of the fridge. (2 marks)

Examiner feedback (2 marks)

This is a basic answer – the student has understood some of the basic rules for preparing food safely. Some good points are made in relation to high-risk foods, which shows some understanding. Further explanation is required for additional marks.

Medium level response

When preparing food it is very important to follow simple rules. Keep everything clean especially self and equipment. Store foods at the correct temperatures in the fridge at 0 to below 5°C or freezer at -18°C. When meat is placed in the fridge it should be put on the bottom shelf as this will stop any dripping of blood onto other foods. It is important to make sure surfaces are disinfected after chopping chicken and use different knives for preparing any high-risk foods. (4 marks)

Examiner feedback (4 marks)

The student has explained thoroughly how food needs to be kept and prepared safely. Some attempt is made to explain and understand, compare and evaluate. There is good use of key temperatures and principles, which are used well to demonstrate good understanding in the preparation of food safely.

High level response

If food is not prepared very carefully, cross-contamination can occur. This can result in food poisoning. It is particularly important to ensure all equipment is very clean, disinfected and washed with hot soapy water, especially after preparing high-risk foods such as chicken. The same knives or chopping boards should not be used for chicken then vegetables. The storage of foods is also very important; meat should be at bottom of fridge and kept at 0 to below 5°C. It should be placed in the fridge as soon as possible after it is bought. Regular checking of the temperatures of fridges and freezers is very important to ensure there is no danger from higher temperatures. It is important to keep pets away from food preparation areas. (6 marks)

Examiner feedback (6 marks)

This answer shows a detailed and thorough understanding of the relationship between the principles of food safety, with clear examples. There is clear explanation and the response is logical, using key terms and giving technical temperature details. Appropriate terms are used and interpreted correctly and accurately. The student has explained several points very well.

Mark scheme

For 6–8 marks: The response shows **thorough** knowledge and understanding of the principles of food safety. The answer gives several detailed reasons and evaluates the uses and relates to **at least five** of the points below. Clear examples have been given.

For 3–5 marks: The response shows **good** knowledge and understanding of the principles of food safety. The answer gives several reasons that relate to **3–4** of the points below. Examples have been stated.

For 0–2 marks: The response shows **some** knowledge and understanding of the principles of food safety. The answer gives some reasons that relate to **2–3** of the points below.

Points to include in the answer

- There is a risk for food poisoning if you don't properly separate your foods to prevent cross-contamination.
- You can greatly reduce your risk of food poisoning by following a few simple steps as you handle, store, shop and cook foods.
- Bacteria can spread through cross-contamination. This occurs when juices from raw meats or germs from unclean objects touch cooked or ready-to-eat foods.
- At the supermarket, check if food is stored separately, fresh from frozen and raw meat, poultry, seafood and eggs away from cooked foods and ready-to-eat foods; keep them apart in shopping trolley and grocery bags.
- If you are using reusable grocery bags to transport groceries, place meat, poultry and seafood in plastic bag to prevent juices from leaking.
- Keep raw meat, poultry and seafood on the bottom shelf of the refrigerator in a sealed container or plastic bag to ensure juices don't drip onto ready-to-eat foods and cause contamination.
- Keep eggs in the original carton and store on shelves of the refrigerator, not on a compartment in the door.

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- Store reusable bags in a clean, dry location and wash them frequently with hot, soapy water or in the washing machine. Avoid leaving reusable shopping bags in the boot of a vehicle.
- Special precautions should be taken when preparing food. Wash hands thoroughly with warm, soapy water for 20 seconds before, during and after handling raw meats and foods or other high-risk foods.
- Wash plates between uses or use separate plates: one for holding raw meat, poultry or seafood, and another for cooked foods.
- Place washed produce into clean storage containers, not back into the original ones.
- Be aware of the tools used during cooking – never use the knife or preparation tool for raw meat, poultry or seafood to chop produce or ready-to-eat foods.
- Use one cutting board for meat, poultry and seafood, and a separate cutting board for produce and ready-to-eat foods.
- Use separate work surfaces for raw and cooked foods or, if there is limited space, be sure to wash the surfaces thoroughly between preparing raw and cooked food.
- Cover prepared food to protect it from pests and dust.
- Defrost frozen foods such as chicken thoroughly, in a cool place (bottom of the refrigerator) on a tray to catch any liquid that leaks from them.

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Chapter 6: Practice question 2

- a) Buying and storing food: Give an explanation or definition of each of these key terms.

Ambient storage	
Shelf-life	
Use-by date	
Best-before date	
Temperature danger zone	
Core temperature	

(6 marks, 1 per explanation/definition)

- b) What three things do you look for when buying each of the following foods?

Fresh fruit and vegetables	1
	2
	3
Fresh meat	1
	2
	3
Fresh fish	1
	2
	3

(9 marks, 3 for each food type)

Chapter 6: Mark scheme for practice question 2

a) Buying and storing food: Give an explanation or definition of each of these key terms.

Ambient storage	<ul style="list-style-type: none"> • Ambient storage: This means the food is stored at ordinary room temperature – usually about 20–21°C.
Shelf-life	<ul style="list-style-type: none"> • Shelf-life: This is how long a food product will last before it becomes unsafe or unpalatable [not nice] to eat.
Use-by date	<ul style="list-style-type: none"> • Use-by date: It is not safe to eat the food after its use-by date.
Best-before date	<ul style="list-style-type: none"> • Best-before date: This tells you that after this date, a non-high-risk food will still be safe to eat, but may have begun to go stale (changed in texture and flavour). After the best-before date the food may not be at its best quality.
Temperature danger zone	<ul style="list-style-type: none"> • Temperature danger zone: The danger zone is from 5 to 63°C. This is the temperature range in which bacteria grow rapidly.
Core temperature	<ul style="list-style-type: none"> • Core temperature: This is the internal temperature to which you must heat food, to ensure it is cooked properly. You must make sure the food reaches a minimum core temperature of 70°C for 2 minutes (or an immediate reading of 75°C). In Scotland the minimum core temperature is 82°C. The food may certainly be hotter than this, but the quality of some food may suffer if it is overcooked or heated.

(6 marks, 1 per explanation/definition)

b) What three things do you look for when buying each of the following foods?

Fresh fruit and vegetables	<ul style="list-style-type: none"> • A good, bright colour • A firm, crisp texture (not wilted or soft) • An unblemished smooth skin • No mould growth • Not too much soil on the skin of root vegetables • No damage • Stored so air can circulate freely • Buy only when you can see the quality of the fresh produce • Buy food in season.
Fresh meat	<ul style="list-style-type: none"> • Not too much fat • A bright red or pink colour for beef, lamb or offal • Creamy-white to pink clean flesh for poultry • A fresh smell • Moist flesh, but not wet, slimy or dried out • A firm, springy texture • No risk of cross-contamination • Stored at the correct temperature of less than 5°C • Do not buy more than you need as it can deteriorate quickly.
Fresh fish	<ul style="list-style-type: none"> • Bright red gills • Firm flesh • A fresh smell, no fishy smell • Clear, shiny eyes that are not sunken • Scales firmly attached, not loose and flaking off • Moist (but not slimy) skin • Bright, natural colouring • White fish should be a pearly colour • Shellfish should be intact; shells should not be broken.

(9 marks, 3 for each food type)

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Mark scheme

For 9–12 marks: The student has a **thorough** knowledge and understanding of the food safety considerations when buying and storing foods. Excellent explanations of each of the definitions have been stated.

For 5–8 marks: The student has a **good** knowledge and understanding of the food safety considerations when buying and storing foods. Good explanations of most of the definitions have been stated.

For 0–4 marks: The student has a **limited** knowledge and understanding of the food safety considerations when buying and storing foods. Some definitions have been stated but a lack of understanding.