# Answers Food Science 20 questions Quiz 1

1 mark for each question. ½ mark each if there are 2 answers for 1 question. Total out of 20.

### **Caramel and Dextrin**

1. Q Which ingredient is used to make caramel: a) flour, b) eggs, c) sugar?

A c) sugar

2. Q What happens if you taste caramel when it has just been made?

A You will burn your tongue!

3. Q How can you test the temperature of sugar caramelisation?

A Use a food probe or food thermometer.

4. Q Why is caramel used in gravy browning?

A To give a brown colour and sweetness.

5. Q Give three examples of how caramel is used in food products

A gravy browning, icecream colour, desserts, soya sauce.

6. Q Which ingredient changes to dextrin: a) sugar, b) milk, c) flour?

A c) Flour

7. Q Why does toast taste sweet?

A Because the starch is turned to dextrin.

8. Q When amino acids are heated when food is roasted, what chemical reaction takes place?

A Maillard reaction.

## **Gelatinisation of starch**

9. Q Which of these is not a starch: a) cornflour, b) eggs, c) wheat flour?

A b) eggs.

10. Q What happens when starch is heated with water?

A It gelatinises.

11. Q What happens to the starch in pasta when it cooks?

A It gelatinises.

12. Q What happens to potatoes when they cook and soften?

A The starch absorbs water and gelatinises.

# **Enzymic browning**

13. Q Why is lemon juice used to coat fruit when making fruit salad?

A To stop enzymic browning when the fruit goes brown.

14. Q Which method will not stop fruit and vegetables turning brown? a) cooking for a short time, b) chilling, c) freezing.

A c) freezing.

#### **Eggs**

15. Q When eggs begin to cook the protein is a) destroyed, b) denatured, c) deactivated? A b) denatured.

16. Q With more heat the egg protein a) condenses, b) sets, c) coagulates?

A b) sets, c) coagulates.

17. Q When egg is cooked for too long, water seeps out. What is this process called?

A Syneresis.

18. Q When egg is whisked and holds air, what is formed?

A A foam.

19. Q What is the function of eggs when making mayonnaise?

A Forming an emulsion.

20. Q What happens if oil is added too quickly to mayonnaise?

A The oil separates out and the mixture curdles as no emulsion is formed.

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# Answers Food Science 20 questions Quiz 2

1 mark for each question. ½ each if there are 2 answers for 1 question. Total out of 20.

# **Cooking cakes**

- 1. Q When fat and sugar are creamed together what is formed? a) a creamery, b) a foam, c) a roux? A b) a foam.
- 2. Q What is the function of eggs in creamed cakes? a) add air, b) form structure, c) help fat melt? A a) add air, b) form structure.
- 3. Q Which type of flour is used in creamed cakes? a) bread flour, b) sauce flour, c) self raising flour? A c) self raising flour.
- 4. Q What type of sugar is used in cake making because it has small crystals? a) brown sugar, b) caster sugar, c) granulated sugar.
- A c) granulated sugar.
- 5. Q Name the protein in flour which forms the structure of bread and cakes.

A Gluten.

### Raising agents

6. Q Name 2 raising agents used to make cakes rise.

A Steam, air, carbon dioxide gas from the self raising flour.

7. Q What raising agent is used to make choux pastry?

A Steam.

8. Q What is the raising agent used to make a Swiss Roll rise?

A Air.

9. Q What ingredient is added to bread so that the dough ferments and rises?

A Yeast.

10. Q Which chemical ingredient is added to soda bread to make it rise?

A Sodium bicarbonate.

11. Q What gas is given off when baking powder is mixed with liquids?

A Carbon dioxide.

# **Ingredients**

12. Q What is the property of fat in pastry?

A Shortening.

- 13. Q What happens if you handle pastry a lot? a) it gets greasy, b) the gluten develops, c) it gets tougher.
- A b) the gluten develops, c) it gets tougher.
- 14. Q When pastry bakes, the gluten in flour helps a) form the structure, b) make it soft, c) add sugar. A a) form the structure.
- 15. Q Which fat is not often used in pastry as it is made from pig fat? a) butter, b) lard, c) margarine? A b) lard.
- 16. Q Which flour is used for shortcrust pastry? a) plain flour, b) self raising flour, c) bread flour? A a) plain flour.
- 17. Q What happens if you add too much water to pastry?

A It becomes sticky and the gluten develops.

18. Q What changes take place when you marinate fish in lemon juice?

A The protein denatures.

19. Q What method of heat transfer is used when making toast?

A Radiation.

- 20. Q Which methods of heat transfer are used when boiling potatoes? a) convection, b) conduction, c) radiation?
- A a) convection, b) conduction.

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