

Total marks — 60
Attempt ALL questions

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Question 1

- (a) Describe two practical ways to encourage children to eat oily fish. 2

Way 1 Add sardines to the top of Pizza

Way 2 Make a pasta which contains tuna.

- (b) Name two nutrients which can be found in oily fish.
Give one function of each in the diet. 4

Nutrient Omega 3

Function ~~reduces~~ free radical which reduces the risk of some cancers.

Nutrient Protein

Function Growth, repair and maintenance of body tissue.

- (c) Explain two reasons why a consumer might choose to buy locally produced fruit and vegetables. 2

Reason 1 Lower food miles as it does not need to travel from another country so could be cheaper.

Reason 2 Fruit + Veg is organic so will be of higher quality and ethically grown/sourced.

- (d) Describe two duties of Trading Standards Officers. 2

Duty 1 Ensure food ~~meets~~ ^{meets} the weights and measures act so customers receive what they pay for.

Duty 2 Ensure that products labels display all statutory information. Statutory (needed by law).

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Question 2

A 16 year old girl is an ice skater who trains four times a week.

The table below shows the daily reference values for females aged 15–18 years.

Dietary reference values for females aged 15–18 years					
Estimated average requirements	Reference nutrient intakes				
Energy (KCal)	Protein (g)	Vitamin C (mg)	Iron (mg)	Calcium (mg)	Fibre (g)
2414	42.1	40	14.8	1000	25

The table below shows the dietary analysis of the 16 year old girl.

Dietary analysis of her typical day's meals					
Energy (KCal)	Protein (g)	Vitamin C (mg)	Iron (mg)	Calcium (mg)	Fibre (g)
2865	60.2	49	11.2	915	13.1

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Question 2 (continued)

- (a) Taking account of the dietary reference values (DRVs) for females aged 15-18, evaluate the suitability of her typical day's meals.

6

Evaluation The 16 year old girl has a diet high in Protein. This is unsuitable because Protein functions as a secondary source of energy, and when energy is not used it turns to fat. Therefore she is at risk of obesity and may develop coronary heart disease.

The 16 year old girl has a diet low in iron. This is unsuitable as iron functions to prevent the risk of anaemia. Therefore she is at risk of developing ~~the~~ anaemia which will result in tiredness meaning that she might not perform to her highest ability.

The 16 year old girl has a diet low in calcium. This is unsuitable as calcium functions for the formation of strong bones and teeth. Therefore she will be at risk of developing osteoporosis.

The 16 year old girl has a diet low in fibre. This is unsuitable as fibre functions to prevent the risk of bowel disorders. Therefore she is at risk of developing bowel disorders such as constipation.

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Question 2 (continued)

- (b) Explain how each of the following factors could influence a teenager's choice of food. 2

Peer pressure They see their friends... eating unhealthy food and feel that they have to do the same to be...

accepted so do not think of the consequences ^{that} of fatty / sugary foods have on the body.

Advertising They see food that they have never seen before and would ^{of otherwise} never thought of buying but the next ^{in a shot} time they see it they will be intrigued to buy it and try it out.

- (c) State one function of and one food source for Vitamin B. 2

Function ~ Functions to release energy from carbohydrate foods. B. Therefore providing the body with energy

Food source Wholemeal bread

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Question 3

A food manufacturer wants to extend its range of baked items to include pastry products.

- (a) Give two reasons for carrying out market research for the new pastry products. 2

Reason 1 Able to find the gap in the market and make a product that fits this gap.

Reason 2 Able to see the type of products and those which are not so popular.

- (b) The results of sensory testing on the pastry products show a number of problems.

For each of the problems below describe a different reason why this may have occurred. 3

Problem 1 – the pastry is soggy inside There has been too much liquid added to the mixture making it wet and hard to bake right through.

Problem 2 – the pastry has a greasy texture There is too much fat in the Pastry compared to the amount of flour so leaves a greasy / oily texture to the Pastry.

Problem 3 – the pastry is very pale in colour The Pastry has not been brushed with ^{an} egg wash before going in the oven so can not get the golden colour that it should/would have.

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Question 3 (continued)

- (c) Explain three factors to be considered when storing pastry products to prevent food poisoning.

3

Factor 1 Store it in a cool ^{dry} place because bacteria need moisture to be able to multiply. (Moisture is an optimum condition).

Factor 2 Store in a sealed container because bacteria need oxygen for them to be able to multiply. (Oxygen is an optimum condition).

Factor 3 Ensure to store in a fridge from (0°C - 5°C) or a freezer (-18°C) so that bacteria is dormant and unable to multiply

- (d) A food manufacturer has put the following labels on two of their food products.

2

Explain the importance of each of the following labels to the consumer.

Food product – oat biscuits

Best before
June 2019

This lets the consumer know when the product will be to its highest quality standard but tells them that past this date it will still be good to eat, just not to such high ~~the~~ quality

Food product – chilled pork pie

Use by
2 June

This lets the consumer know that after this date it is no longer safe to eat and can cause harm to them, such as food poisoning

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Question 4

- (a) Explain two ways in which each of the following diet-related diseases could be prevented.

4

Coronary heart disease

Explanation 1 Reduce the Saturated fat content in the diet which will therefore reduce the risk of obesity further more resulting in less risk of coronary heart disease.

Explanation 2 Reduce the overall sugar content in the diet as this will reduce the risk of obesity which again will help to reduce the risk of coronary heart disease.

Anaemia

Explanation 1 Increase iron in the diet because iron functions to reduce the risk of developing anaemia.

Explanation 2 Increase Vitamin C content in the diet as it functions to release iron from foods which again functions to reduce the risks of anaemia.

- (b) Explain two reasons why a consumer may choose to use ultra-heat treated (UHT) products.

2

Reason 1 This prevents the ability for bacteria to grow so reduces the risk of wastage for the consumer (has a longer shelf life.)

Reason 2 Cheaper as there is much less packaging used so the consumer will not have to pay as much as they normally would.

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	MARKS	DO NOT WRITE IN THIS MARGIN
Question 4 (continued)		
<p>(c) Explain how each of the following additives may benefit the consumer.</p> <p>Sweeteners <u>This gives the product a much sweeter flavour which will appeal to the consumer as it gives it a more desirable/enjoyable taste for the consumer.</u></p> <p>Flavourings <u>This gives the product a completely different taste meaning that the consumer can enjoy a tasty product that is enjoyable to eat.</u></p>	2	
<p>(d) Describe two ways Food Standards Scotland protects the consumer.</p> <p>Way 1 Visit <u>Visit kitchens and restaurants to ensure that correct hygiene is met and food is correctly stored to prevent the risk of food poisoning.</u></p> <p>Way 2 <u>Ensure that all food is stored correctly within shops to prevent the risk of food poisoning for the consumer.</u></p>	2	

Question 5 (continued)

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- (c) A farm shop is starting a delivery service of seasonal fruit and vegetable boxes.

Evaluate the suitability of the following fruit and vegetable box for the farm shop customers.

3

Seasonal Fruit and Vegetable Box

Contents

- a variety of fruit and vegetables from the farm
- fruit and vegetable choices change weekly depending on availability
- recipe cards relating to the fruit and vegetables in the box
- delivery charge £4
- delivery times Monday–Friday 2 pm–8 pm

Evaluation The farm shop delivery service has delivery times Monday–Friday 2pm–8pm. This is suitable as working hours are usually 9am–5pm. Therefore more people will be home and available to collect the delivery.

The farm shop delivery service has recipe cards relating to the fruit + veg box. This is suitable as lots of people would not know what to do with the produce. Therefore more people will be encouraged to buy the box as they will know what to do with it.

The farm shop delivery service offer a delivery charge of £4. This is suitable as it is cheap. Therefore more people will be encouraged to purchase the fruit + veg box as the delivery charge is very affordable.

Question 5 (continued)

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- (d) Explain one way Modified Atmosphere Packaging (MAP) products benefit the consumer.

1

MAP ~~Products~~ Products have a much longer shelf life due to the ~~oxygen~~ oxygen being ^{removed and} replaced with nitrogen, therefore the consumer has much less wastage as the product does not go off/expire so quickly.

Question 6

- (a) Evaluate the suitability of using Fair trade products in a school canteen.

4

Evaluation Fair trade products are more expensive. This is unsuitable because school pupils may not be able to afford fair trade products. Therefore they will be less likely to purchase the fair trade products and choose the cheaper option.

Fair trade products are more ethically ^{sourced} than other products. This is suitable as it can be bought by those who have certain ethical beliefs. Therefore more school pupils will be encouraged to purchase the fair trade products.

Fair trade products are of higher quality. This is suitable because they are of higher standard than other products. Therefore school pupils will be encouraged to purchase the fair trade products.

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Question 6 (continued)

- (b) A school canteen wants to make its popular panini healthier.

Describe three changes which could be made to the ingredients in the panini recipe below.

Explain how each change helps to meet a different piece of Current Dietary Advice.

6

Chicken panini
White panini baguette
Mozzarella cheese
Fried chicken strips
Salt and pepper
Sliced tomato

Change 1 Swap the White Panini baguette for a
Wholemeal Panini baguette.

Explanation By swapping to a Wholemeal Panini baguette
this increases fibre in the diet which helps reduce the
risk of bowel disorders such as constipation.

Change 2 Swap the fried chicken strips for grilled
chicken strips.

Explanation This decreases the saturated fat content in
the diet as all fat is removed when cooked and no extra fat
is added so reduces the risk of coronary heart disease.

Change 3 Swap mozzarella cheese for edam cheese
(low fat cheese).

low fat option Explanation This decreases ^{the} saturated fat in the diet ^{as it is a}
which helps reduce the risk of obesity which again helps
prevent the risk of coronary heart disease.

[END OF QUESTION PAPER]