



**General Certificate of Secondary Education
2012**

Home Economics

**Unit 1: Diet and Health
and Consumer Awareness**

[GHE11]

MONDAY 14 MAY, MORNING

**MARK
SCHEME**

Section A – DIET AND HEALTH

AVAILABLE
MARKS

- 1 (a) Write down **two** sources of starchy foods. (AO1)

Answers may include any **two** of the following foods:

- bread
- rice
- pasta
- potato
- breakfast cereals.

All other valid responses will be given credit

(2 × [1])

[2]

- (b) Suggest **four** pieces of dietary advice to reduce dental caries. (AO1)

Answers may include any **four** of the following points:

- eat more milk and dairy products
- eat sweets all at once or after a meal
- drink water
- cut down on the amount of sugary foods eaten, e.g. sweets, biscuits
- replace sugary drinks with water
- cut down on sticky chewy foods which stay in the mouth for a long time, e.g. toffee, some breakfast cereals
- replace sugary snacks with fruit or vegetables
- eat cheese after a meal to balance the effects of acid produced by bacterial plaque
- take sugar-free chewing gum as this creates saliva production – helps to neutralise acids which cause tooth decay
- avoid adding sugar to foods
- do not snack between meals.

NOT: attend dentist/brush teeth/use fluoride toothpaste

All other valid points will be given credit

(4 × [1])

[4]

- (c) Identify a health problem that may develop from a low intake of non-starch polysaccharide (NSP). (AO1)

Answers may include any **one** of the following points:

- constipation
- bowel disorders, e.g. diverticulitis, bowel cancer
- heart disease
- high cholesterol
- obesity
- cancer
- diabetes
- high blood pressure.

(1 × [1])

[1]

Section A – DIET AND HEALTH

AVAILABLE
MARKS

- (d) Explain why eating foods rich in NSP can help maintain a healthy weight. (AO1, AO2)

Answers should address any of the following points:

- soluble NSP takes longer to digest so helps keep blood sugar levels constant
- they are rich in fibre which helps to absorb water – makes us feel full for longer
- provide feeling of fullness so less likely to snack on high fat/sugar foods – less risk of obesity
- generally low in fat and/or sugar so less risk of weight gain.

All other valid responses will be given credit

[1] basic explanation

[2] competent explanation

(1 × [2])

[2]

9

- 2 (a) Identify a function of the following vitamins: (AO1)

(i) Vitamin B₁:

- helps the release of energy from carbohydrates/food
- needed for normal growth in children
- functioning and maintenance of nerves
- strengthens the immune system
- assists use of enzymes
- healthy mucous membranes.

(ii) Vitamin D:

- works with calcium to form healthy teeth
- assists calcium to strengthen bones.

(2 × [1])

[2]

- (b) Write down **two** dietary disorders linked to a high amount of salt in the diet. (AO1)

Answers should include any **two** of the following points:

- heart disease
- increased blood pressure/hypertension
- stroke.

NOT: obesity

(2 × [1])

[2]

Section A – DIET AND HEALTH

AVAILABLE
MARKS

(c) Explain why the ingredients on a food label are listed in a particular order. (AO1, AO2)

- ingredients listed in descending order – highest amount first
- consumers can see main ingredients – know what they are paying for
- can compare one product with another
- consumer can make an informed choice.

Must explain 'why' not just 'how' for [2]

[1] basic explanation

[2] competent explanation

(1 × [2])

[2]

(d) Many food and drink products have additional **claims** on their label. Discuss why consumers may be misled by these statements. (AO1, AO2, AO3)

Discussion may include the following:

'No added sugar'

- gives the impression of a natural product
- may still contain high amounts of sugar – natural
- may have artificial sweeteners
- may have high levels of fat and/or salt.

'80% fat free'

- appears to have low fat content
- still has 20% fat content – could be very high amount depending on weight of product.
- the 20% remaining may be saturated fat – not clearly stated
- may have high levels of sugar and/or salt.

All other valid responses will be given credit

[1] basic discussion

[2] competent discussion

(2 × [2])

[4]

Section A – DIET AND HEALTH

AVAILABLE
MARKS

- (e) Discuss **two** ways convenience foods can be used in preparing healthy balanced meals. (AO1, AO2, AO3)

Answers may include any **two** of the following points:

- frozen vegetables added to stews or casseroles as nutrients retained by freezing – increasing vegetable intake
- dried pasta or rice used with fresh meat or chicken and vegetables to increase carbohydrate intake
- canned fish, e.g. tuna, salmon used with pasta and sauce to create quick lunch
- pizza base used with tomato sauce, vegetables and meat/chicken.

Need to state what and why/how used

Responses should show an understanding of the **use** of convenience foods in relation to either nutrients provided or **how** they are used in a balanced meal

All other valid responses will be given credit

[1] basic discussion

[2] competent discussion

(2 × [2])

[4]

14

- 3 (a) Explain the importance of iron in the diet of a pregnant woman. (AO1, AO2, AO3)

- meets mother's needs, e.g. prevents tiredness, prevents anaemia
 - extend by reference to oxygen carrying
 - reference to haemoglobin/component in blood
- helps develop baby's blood system
- builds iron stores for first months after birth.

[1] basic explanation

[2] competent explanation

[3] highly competent explanation

(1 × [3])

[3]

- (b) Explain why pregnant women are encouraged to drink orange juice with foods containing iron. (AO1, AO2)

- provides vitamin C
- increases absorption of iron
- reduces non-haem iron to haem iron
- maximises availability of iron.

[1] basic explanation

[2] competent explanation

(1 × [2])

[2]

Section A – DIET AND HEALTH

AVAILABLE
MARKS

(c) Explain why pregnant women are given the following advice:
(AO1, AO2, AO3)

(i) Avoid soft cheese, e.g. Brie:

- may contain listeria bacteria
- increases risk of miscarriage or stillbirth
- premature birth
- baby may be born ill or get sick soon after birth
- may cause serious illness, e.g. meningitis.

(ii) Avoid liver:

- causes birth defects
- contains high levels of vitamin A
- can be toxic to unborn baby in excess.

(iii) Increase folic acid:

- helps development of brain and nervous system
- prevents neural tube defects, e.g. spina bifida/cleft lip/palate
- prevents premature birth/congenital heart disease
- assists growth of baby
- prevents anaemia – makes red blood cells
- prevents low birth weight
- essential for cell formation.

NOT: just 'development' of baby/harmful or dangerous for any of the above

[1] basic explanation

[2] competent explanation

(3 × [2])

[6]

11

4 Many people suffer from food intolerance.

(a) Write down **two** symptoms of lactose intolerance. (AO1)

Answers should include any **two** of the following points:

- sickness/nausea
- stomach cramps
- bloatedness
- flatulence
- diarrhoea
- urgent need to use toilet – bowel movements
- weight loss.

(2 × [1])

[2]

Section A – DIET AND HEALTH

AVAILABLE
MARKS

- (b) Underline **three** foods which should **not** be eaten by someone who is lactose intolerant. (AO1) Accept circling.

Answers must include the following:

- cow's milk
- custard
- goat's milk.

(3 × [1])

[3]

- (c) Discuss **two** points of diet and lifestyle advice for a person with coeliac disease. (AO1, AO2, AO3)

Answers may include any **two** of the following points:

- contact GP for advice
- avoid foods containing gluten, e.g. wheat, barley, rye
- substitute gluten containing foods with gluten free foods, e.g. rice, potatoes, cornflour
- check food labels
- speak to a dietitian
- exercise (only award [1] unless fully explained that coeliac sufferers may experience weight gain when diagnosed).

[1] basic discussion

[2] competent discussion

(2 × [2])

[4]

9

Section A – DIET AND HEALTH

AVAILABLE
MARKS

- 5 Suggest and justify diet and lifestyle advice for parents wanting to reduce their children's risk of obesity. (AO1, AO2, AO3)

Answers may address any of the following points:

- reduced intake of fat, especially saturated fat, e.g. reduce intake of processed/fast food, change cooking methods – grill instead of frying
- reduce intake of sugar, e.g. switch to low sugar breakfast cereals, low sugar snacks such as fruit, reduce consumption of fizzy drinks
- increase intake of fruit and vegetables as they are low in calories, fat and sugar, e.g. eat as a snack and include at mealtimes
- increase NSP intake to encourage a feeling of fullness and prevent snacking, e.g. wholegrain toast or cereals
- try to achieve a balanced diet by following the advice from the 'eatwell plate'
- try to achieve energy balance by ensuring kcal taken in as food are balanced with the amount of kcal used doing physical activity
- encourage good eating habits at home, e.g. three meals a day and healthy snacks
- encourage them to take up a sport
- encourage them to be actively involved in games at school
- encourage them to join an organisation that promotes physical activity
- get family membership of a gym
- encourage children to take a healthy packed lunch
- get children involved in cooking
- breastfeeding
- portion size
- reading food labels.

All other valid points will be given credit

Must have diet **and** lifestyle points and relate to reducing risk of obesity to access Level 3

If list-like bullet points, no access to Level 3

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited justification applied in simple terms to the question
- quality of written communication is basic.

Level 2 ([4]–[6])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent justification applied accurately to the question
- quality of written communication is competent.

Level 3 ([7]–[9])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent justification applied accurately within the context of the question
- quality of written communication is highly competent.

(1 × [9])

[9]

9

Section A – DIET AND HEALTH

AVAILABLE
MARKS

- 6 Describe the nutritional benefits of a vegetable and noodle stir-fry for an adolescent. (AO1, AO2, AO3)

Answers should address some of the following points:

- increases intake of vegetables to meet 5-a-day recommendation – encourages well-balanced diet for the adolescent
- carbohydrate, found in sweetcorn, peas and beans – relates to recommendation of 50% of energy, needed for adolescents
- protein, found in peas, beans, nuts and seeds – helps growth, repair and maintenance
- vegetables and noodles are low in fat, therefore reducing risk of obesity in adolescence
- unsaturated fat used for cooking will reduce risk of CHD
- adds NSP, found in skins of vegetables – prevents bowel disorders
- iron, found in green leafy vegetables, beansprouts, peas and beans – needed to form haemoglobin in red blood cells – essential to prevent anaemia, common in adolescence
- calcium, found in green leafy vegetables – strengthens bones and teeth
- vitamin A, found in carrots, green leafy vegetables, red and orange peppers, needed for night vision, healthy skin, e.g. skin problems in adolescence
- vitamin C, found in broccoli and peppers – helps absorption of iron, maintains connective tissue
- vitamins A and C, antioxidant vitamins – provide protection against some diseases, e.g. CHD
- high heat results in quicker cooking – food in contact with oil for less time, vegetables maintain structure so less loss of vitamins
- sauces could add additional salt/sugar so their content should be considered.

All other valid points should be considered

Must refer to an adolescent and discuss specific vegetables to access Level 3

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited description applied in simple terms to the question
- quality of written communication is basic.

Level 2 ([4]–[6])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent description applied accurately to the question
- quality of written communication is competent.

Section A – DIET AND HEALTH

Level 3 ([7]–[9])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent description applied accurately within the context of the question
- quality of written communication is highly competent.

(1 × [9])

[9]

Total for Section A

AVAILABLE
MARKS

9

61

Section B – CONSUMER AWARENESS

AVAILABLE
MARKS

- 7 (a) Explain **two** difficulties for a 21-year-old foreign student, living in Northern Ireland, who wants to return a faulty laptop that was recently bought here. (AO1, AO2)

Answers may address **two** of the following barriers:

- may not have confidence to return it to the shop
- concerns may not be taken seriously by shop staff
- English may not be first language – may hinder communication
- may not understand rights – may have problems taking it further
- cultural differences in consumer behaviour
- may not be aware of consumer rights
- consumer law is difficult to understand
- as a student, may not have much money to take case further if necessary
- may not have much time if at college/university
- may be unaware of sources of advice, e.g. Citizens Advice Centre.

All other valid responses will be given credit

[1] basic explanation

[2] competent explanation

(2 × [2])

[4]

- (b) Explain how the Sale and Supply of Goods Act applies to this situation. (AO1, AO2)

Answers should include the following:

- goods are not 'of satisfactory quality' – the laptop is not working as it should
- not 'fit for purpose' – designed to be switched on and used as laptop
- the law gives the student the right to take the matter further, i.e. provide repair/replace/refund

If question is misunderstood, i.e. refers to organisation rather than law = [0].

All other valid responses will be given credit

[1] basic explanation

[2] competent explanation

(1 × [2])

[2]

Section B – CONSUMER AWARENESS

AVAILABLE
MARKS

- (c) Describe **two** ways the Trading Standards Consumerline Service can support this student. (AO1, AO2)

Answers should include any **two** of the following points:

- offers advice through website and telephone helpline
- consumerline advisors will give advice on what to do re: the faulty laptop
- translation service offered by appointment
- leaflets on how to complain are available in a range of languages
- can make contact and complete complaint form online
- provide sample complaint forms online to download
- they will help to write letters
- they do not prosecute
- in exceptional circumstances:
 - will meet consumers
 - will contact traders
 - will pass onto Trading Standards officers.

[1] basic description

[2] competent description

(2 × [2])

[4]

10

- 8 (a) Write down **two** examples of 'income' for a family. (AO1)

Answers could include **two** of the following:

- salary and wages
- benefits
- pension
- gift from family/friends
- selling own goods to friends or through internet
- inheritance
- interest from savings
- windfall.

(2 × [1])

[2]

- (b) Describe the difference between 'needs' and 'wants' when planning a family budget. (AO1, AO2)

Answers should address some of the following points:

- 'needs' are priorities/essentials for life, e.g. clothes, food, heat, shelter, protection, education
- 'wants' are additional things that improve the quality of life, e.g. fashion, holidays, eating out.

Must show the necessity of planning for needs before wants/prioritising within the family budget

All other valid responses will be given credit

[1] basic description

[2] competent description

(1 × [2])

[2]

Section B – CONSUMER AWARENESS

AVAILABLE
MARKS

- (c) 'Adolescents should be taught to budget their money from an early age.' Discuss this viewpoint. (AO1, AO2, AO3)

Answers may include any of the following points:

- teaches financial responsibility – develops good habits
- helps them appreciate how much everything costs
- helps them examine their spending and prioritise
- encourages saving
- helps relieve pressure on parents to provide everything.
- might be seen to inhibit a child's enjoyment of life
- gives them financial concerns too early.

Must relate to adolescents to access Level 3

All other valid responses will be given credit

Level 1 ([1]–[2])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited discussion applied in simple terms to the question.

Level 2 ([3]–[4])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent discussion applied accurately to the question.

Level 3 ([5]–[6])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent discussion applied accurately within the context of the question.

(1 × [6])

[6]

10

Section B – CONSUMER AWARENESS

AVAILABLE
MARKS

9 A retired couple may have to manage their resources more carefully.

(a) Discuss **two** ways they could reduce their home energy bills.
(AO1, AO2, AO3)

Answers may include the following:

- shop around for bargains in fuel providers, e.g. electricity, gas, oil
- use of energy saving features in kitchen, e.g. use microwave instead of oven
- turn heating down
- improve insulation
- wrap up warmly
- do not leave electrical equipment on standby or use less, e.g. tumble drier
- research grants available for new forms of energy, e.g. Solar
- use energy saving light bulbs
- windows closed to prevent heat loss
- pay bills by direct debit to avail of discount
- full loads of washing
- move furniture away from radiators
- use timers to avail of cheaper rate electricity.

All other valid responses will be given credit

[1] basic discussion

[2] competent discussion

(2 × [2])

[4]

(b) Evaluate their decision to shop in a market. (AO1, AO2, AO3)

Answers may include any of the following:

Positive

- may be located in their community – friendly shopping experience
- prices tend to be cheaper for food products
- no stairs so accessible for anyone with poor mobility
- can buy smaller amounts of goods – not pre-packed
- support local community/reduces airmiles.

Negative

- variety may be limited
- open air so prone to poor weather conditions
- prices may not be openly displayed – no labels
- no trolleys – have to carry everything
- may be difficult to get refunds for faulty items as no receipt
- food not labelled
- parking problems
- only on specific days
- difficult to return faulty products
- food in less hygienic conditions
- for specialist products prices may be high.

All other valid responses will be given credit

Must relate to retired couple for Level 3

Section B – CONSUMER AWARENESS

AVAILABLE
MARKS

Level 1 ([1]–[2])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited evaluation applied in simple terms to the question.

Level 2 ([3]–[4])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent evaluation applied accurately to the question.

Level 3 ([5]–[6])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent evaluation applied accurately within the context of the question.

N.B. positive and negative comments must be included to be awarded full marks

(1 × [6])

[6]

10

- 10** Discuss **three** factors which may influence a person when buying jeans. (AO1, AO2, AO3)

Answers may address some of the following points:

Economic

- price – may not want to spend too much – could buy something else as well
- could take advantage of any special offers, discount.

Personal

- appearance – colour, texture, design
- likes and dislikes – personal preference
- brand/store loyalty
- need or desire.

Environmental

- country of manufacture
- materials used for jeans.

Psychological

- may spend more if feeling down to cheer self up, 'retail therapy'
- may spend more to celebrate if in good mood.

Section B – CONSUMER AWARENESS

AVAILABLE
MARKS

Social

- influence of friends – peer pressure
- influence of family – life long habits
- family/friends' experience of this outlet.

All other valid points will be given credit

[0] is awarded for a response not worthy of credit

Level 1 ([1]–[3])

Overall impression: basic

- identifies and comments on a few obvious points relevant to the question
- a limited discussion applied in simple terms to the question
- quality of written communication is basic.

Level 2 ([4]–[6])

Overall impression: competent

- identifies and comments on some key points relevant to the question
- a competent discussion applied accurately to the question
- quality of written communication is competent.

Level 3 ([7]–[9])

Overall impression: highly competent

- identifies and comments on the key points relevant to the question
- a highly competent discussion applied accurately within the context of the question
- quality of written communication is highly competent.

Must discuss three factors to access Level 3.

(1 × [9])

[9]

9

Section B

39

Total

100