

Chapter 1 revision memorandum

Question 1

- 1.1.1 A ✓
- 1.1.2 B ✓
- 1.1.3 A ✓
- 1.1.4 C ✓
- 1.1.5 D ✓ (5)

- 2.1 Glycaemic Index ✓
- 2.2 Diabetes ✓
- 2.3 Cholesterol ✓
- 2.4 Osteoporosis ✓
- 2.5 Obesity ✓
- 2.6 Bulimia ✓
- 2.7 Food Intolerance ✓
- 2.8 Hepatitis A ✓
- 2.9 Gastro-enteritis ✓
- 2.10 Additive ✓ (10)

Question 2

- 2.1.1 Low GI foods help to minimise fluctuations in blood glucose levels. ✓ This helps to reduce the risk of complications of diabetes. ✓ (2)
- 2.1.2 A low GI diet may assist with weight loss in two ways. High insulin levels lead to fat storage. ✓ A low GI diet lowers insulin levels and thus limits fat storage. ✓ The carbohydrates in low GI foods are digested slowly, making people feel fuller for longer. ✓ However, following a low GI diet can only help with weight management if combined with regular physical activity and a controlled kilojoule intake. (3)
- 2.2.1 Best choice for a person suffering from anaemia: Egg, mushrooms, fresh tomato, bacon and beef sausage. ✓ Tomatoes provide Vitamin C ✓ that helps with the absorption of iron. ✓ Egg, bacon and beef sausages ✓ are good sources of iron. ✓ (5)
- 2.2.2 Best choice for a person suffering from high cholesterol levels:
Fresh fruit and oats with honey ✓
Fresh fruit provide vitamin A and C ✓ that acts as anti-oxidants ✓ that protects against heart disease ✓
Oats contain soluble fibre ✓ that lowers cholesterol levels ✓ (any 5)

Question 3

- 3.1 Treatment of hepatitis A:
- Rest ✓
 - Eat five or six smaller meals instead of three large meals ✓
 - Drink energy-dense drinks, such as fruit juice or milk, if enough food cannot be eaten ✓
 - Replace fluids lost through vomiting and diarrhoea ✓
 - Eat foods rich in soluble fibre that binds loose stools ✓
 - Avoid alcohol ✓
 - Eat low-fat foods ✓
 - Follow a healthy, balanced diet with lots of fruit and vegetables ✓ (any 5)
- 3.2 Prevention of gastro-enteritis
- Washing hands regularly for at least 20 seconds with warm soapy water, especially before working with food and after going to the toilet, and changing nappies, ✓ carry wipes or hand sanitizer for times when soap and water are not available. ✓
 - Cleaning kitchen surfaces before and after preparing food; ✓
 - Keeping raw meat, eggs, poultry and fish away from other foods that will be eaten raw; ✓
 - Avoid eating undercooked meat and fish; ✓
 - Drinking bottled water and avoiding ice cubes when travelling, especially in developing countries. ✓ (any 5)

Question 4

- 4.1 Nutrients: Improve a population's nutritional status. ✓ (1)
- 4.2 Emulsifiers: Prevents the separation of oil and water ✓ and provides a consistent texture. ✓ (2)
- 4.3 Stabilisers: Give food an even texture ✓ (1)
- 4.4 Bleach and colourants: Make food more attractive ✓ (1)
- 4.5 Chemical preservatives: Prolong the shelf life ✓ of a food by protecting it against deterioration caused by micro-organisms. ✓ (2)
- 4.6 Anti-oxidants: Prevent the oxidation of foods ✓ that can lead to rancidity ✓ or discolouration. ✓ (3)

Question 5

- 5.1 Comparative claim "reduced sugar jam." ✓ This means the product's sugar content is less than the expected norm in jam. ✓ (2)
- 5.2 Statement that could be confusing: "sun-sweetened organic fruit." ✓ Consumers may not understand what is meant by "sun-sweetened" / how the sun can sweeten fruit ✓ (2)
- 5.3 "Organic fruit" means that the fruit was produced without artificial fertilizers, ✓ pesticides ✓ or herbicides. ✓ (3)
- 5.4.1 Additives:
 - Pectin ✓
 - Ascorbic acid ✓
 - Citric acid ✓ (3)
- 5.4.2 Pectin: Stabiliser – give food an even texture ✓
 - Ascorbic acid: Anti-oxidant – prevent oxidation that can lead to rancidity or discolouration ✓
 - Citric acid: Improve taste – add sour taste ✓ and acts as a preservative ✓ (4)

- 5.5 This product would not contribute significantly to the nutritional value of a meal or snack ✓
 High energy value ✓
 High in sugar ✓
 Low in protein ✓
 Low in fat ✓
 Low in fibre ✓
 Vitamin C provided by fruit would have been destroyed by the heat of cooking jam ✓ (any 6)

Question 6

- 6.1 It is safe to eat irradiated food. ✓ (1)
 Extensive studies have not identified any by-products unique to irradiated foods and none that are harmful. ✓
 Food irradiation is probably the most well-researched food processing method ever used. Scientists from more than 40 countries researched, evaluated and tested food irradiation for more than 50 years. The evidence is unanimous in support of irradiation as a safe and effective method for treating food. ✓
 Food irradiation poses no health risk. ✓
 Food irradiation is endorsed internationally by numerous professional groups and organisations such the World Health Organisation, and the Food and Agriculture Organisation. In South Africa the process is approved and supported by the Department of Health. ✓
 Food irradiation actually improves the safety and quality of food and it protects consumers from food borne illness. ✓
 Before a product can be irradiated in South Africa, it must be proofed that there is a reasonable technological need that the process does not present a health hazard and that is going to benefit consumers. The maximum permissible dose is prescribed. ✓ (4)
- 6.2.1 Food security exists when:
 There is sufficient quantities of food ✓ available on a consistent basis ✓
 People have sufficient resources ✓ to obtain appropriate foods for a nutritious diet ✓
 Food is used appropriately, ✓ based on knowledge of basic nutrition ✓ and care, as well as sanitation ✓ (5)
- 6.2.2 Many households in rural areas may not be food secure for the following reasons:
 Many people are unemployed, ✓ and as a result live in poverty ✓ as they have a very low income. This means people do not have resources to obtain food. ✓
 People may not have access to food, ✓ meaning they live far from shops and do not have transport. ✓
 Many people are uneducated ✓ and do not know the basic of nutrition and sanitation. ✓ (5)

Total marks: 50