
FOOD STUDIES

9336/02

Paper 2 Practical Test

October/November 2017

MARK SCHEME

Maximum Mark: 100

Published

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This document consists of **6** printed pages.

Question	Answer	Marks
1(a)	dishes chosen – four dishes – suitability	4
	variety of skills chosen without repetition	4
1(b)	suitable choice of decorated cake	1
	degree of skill in decoration	1
1(c)(i)	in the mouth salivary amylase / ptyalin acts on cooked starch converting it to maltose; in the duodenum pancreatic amylase from the pancreatic juice breaks down undigested starch to maltose; in the ileum – maltase converts maltose to glucose – sucrose / invertase converts sucrose to glucose and fructose – lactase converts lactose to glucose and galactose; absorbed by active transport into the blood capillaries of the villi – and then via the hepatic portal vein to the liver where all monosaccharides are changed to glucose – then passed to the cells by active transport;	4
1(c)(ii)	<i>health problems associated with a lack of sugar</i> diabetes – body does not produce enough insulin – leads to a high level of glucose in the blood – excreted in urine – can damage kidneys / eyes / feet; obesity – excess sugar is converted to fat – stored under the skin – adipose tissue and around internal organs – extra weight puts a strain on the heart – may cause hypertension / CHD / arthritis / breathing difficulties; CHD – hypertension – can lead to strokes – poor blood circulation – fatty deposits block / narrow artery walls – restrict supply of oxygen to the heart muscle of oxygen – can lead to heart attack; tooth decay – acids produced by bacteria in the mouth and break down sugars on teeth – cause plaque – a sweet sticky residue which coats the teeth – can dissolve tooth enamel / form holes;	3
	<i>ways to reduce sugar consumption</i> avoid adding to beverages – use artificial sweeteners; choose diet / low calorie carbonated drinks; reduce the amount of sugar in recipes; avoid canned fruit in syrup – choose fresh fruit or fruit in its own juice; reduce the consumption of cakes / biscuits / sweets / chocolate; avoid sugar-coated cereals; read nutritional labels on packaged foods; fresh fruit instead of cordials / soda;	3

Question	Answer	Marks
1(c)(iii)	skills used – use of seasonal foods – ease of obtaining foods, e.g. grow in garden at home – oven management – cost / in season – serving	4
1(c)(iv)	at least four nutrients and appropriate functions given	4

Question	Answer	Marks
2(a)	dishes chosen – four dishes – suitability	4
	variety of skills chosen without repetition	4
2(b)	suitable choice of decorated cake	1
	degree of skill in decoration	1
2(c)(i)	<p>in the stomach hydrochloric acid and pepsin from gastric juice and begin protein digestion – makes the stomach very acidic with a pH of 1.5 – acidic environment is necessary for hydrochloric acid to react with pepsinogen to form pepsin – so that it can break the peptide bond in proteins – polypeptides / peptones;</p> <p>rennin is an enzyme that is present in infants to clot milk so that pepsin can act upon it more efficiently;</p> <p>in the duodenum – bile from the gall bladder neutralises the acid and stops the action of pepsin;</p> <p>trypsinogen produced by the pancreas mixes with enterokinase – activates trypsinogen to form trypsin – continues breakdown of protein to peptones;</p> <p>in the ileum – erepsin converts peptones to amino acids;</p> <p>amino acids are absorbed by active transport into the blood capillaries of the villi – via hepatic portal vein to the liver – deamination occurs in the liver – nitrogen removed and is excreted as urea;</p>	4
2(c)(ii)	<p>lightening – ovalbumin stretches and traps air – meringues / mousses / souffles;</p> <p>raising agent – ovalbumin stretches and traps air – cake making;</p> <p>thickening – coagulation of protein – custards / sauces / soups;</p> <p>emulsifying – egg yolk contains lecithin – enables oils and water to be mixed together without separation – mayonnaise;</p> <p>binding – protein coagulates and holds ingredients together – fish cakes / rissoles;</p> <p>coating – egg forms a protective layer on the outside of the food which sets and prevents the food from falling apart – fish;</p> <p>glazing – eggs can be brushed over food to produce a golden-brown glaze during baking – pastries / bread;</p> <p>enriching – provide extra protein to a dish – milk puddings / soups;</p> <p>garnishing – hard-boiled egg can be used to make a dish look more attractive / add colour – dressed crab;</p> <p>as a main meal – breakfast – scrambled / poached;</p> <p>clarifying – soups;</p>	6
2(c)(iii)	skills used – use of seasonal foods – ease of obtaining foods, e.g. grow in garden at home – oven management – cost / in season – serving	4
2(c)(iv)	at least four nutrients and appropriate functions given	4

Question	Answer	Marks
3(a)	dishes chosen – four dishes – suitability	4
	variety of skills chosen without repetition	4
3(b)	suitable choice of decorated cake	1
	degree of skill in decoration	1
3(c)(i)	<p><i>calcium</i> formation and maintenance of bones and teeth / clotting of blood / muscle and nerve function – milk / cheese / bones of canned fish;</p> <p><i>iron</i> component of haemoglobin / needed for the transport of oxygen around the body – red meat / liver / kidney / cocoa / plain chocolate;</p> <p><i>vitamin A</i> needed to make visual purple / enables vision in dim light / keeps mucous membranes moist and free from infection / health of skin – milk / cheese / egg yolk / carrots / green vegetables;</p> <p><i>vitamin C</i> needed to make connective tissue / absorption of iron / healing of wounds – kiwi fruit / blackcurrants / citrus fruit / green vegetables;</p>	4

Question	Answer	Marks
3(c)(ii)	<p>vitamin C for absorption of iron – important for the formation of collagen which is especially important in blood vessels – citrus fruit;</p> <p>calcium – formation of bones – fetus – milk and cheese;</p> <p>vitamin D – absorption of calcium – bones and teeth – shortage could lead to rickets – oily fish / sunlight;</p> <p>folic acid / folate prevent birth defects known as neural tube defects – spina bifida – green vegetables / brown rice / fortified breakfast cereals;</p> <p>iron – supply baby and prevent anaemia – red meat / green vegetables / fortified breakfast cereals;</p> <p>zinc – component of enzymes that help regulate gene expression / important for rapid cell growth that occurs during pregnancy – lean meat / wholegrain cereals / milk / seafood / legumes / nuts;</p> <p>vitamin A – too much can harm the fetus – can affect development of the central nervous system – can also have a detrimental effect on the fetus' respiratory system – avoid liver or liver-containing products – liver pâté / liver sausage / haggis;</p> <p>ensure all meat is thoroughly cooked – risk of toxoplasmosis – infection caused by a parasite that can be found in raw and undercooked meat / unpasteurised goats' milk / untreated water;</p> <p>limit tuna as it may contain mercury – could harm fetus' developing nervous system;</p> <p>avoid some soft cheeses and pâté – ideal environment for growth of listeria – can cause miscarriage / stillbirth;</p> <p>make sure eggs are thoroughly cooked – to prevent the risk of salmonella food poisoning;</p> <p>only small amounts of caffeine – can cause low birth weight / miscarriage;</p>	6
3(c)(iii)	<p>skills used – use of seasonal foods – ease of obtaining foods, e.g. grow in garden at home – oven management – cost / in season – serving</p>	4
3(c)(iv)	<p>at least four nutrients and appropriate functions given</p>	4