UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

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0648 FOOD AND NUTRITION

0648/01

Paper 1 (Theory), maximum raw mark 100

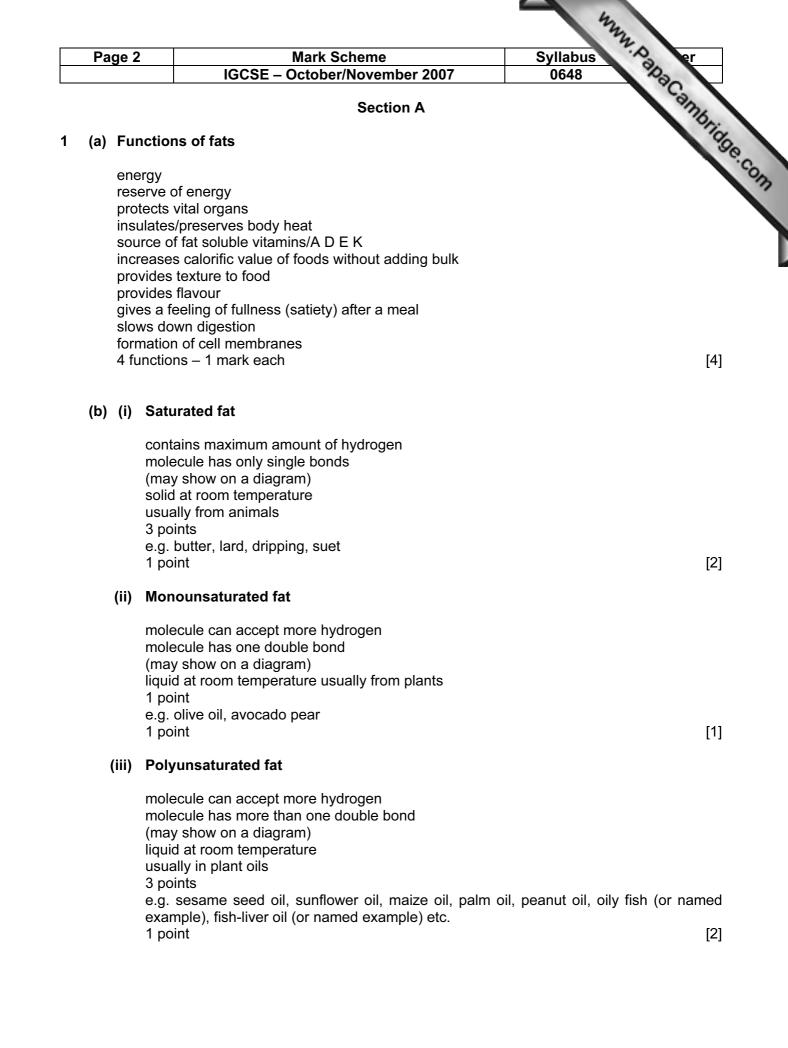
This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began.

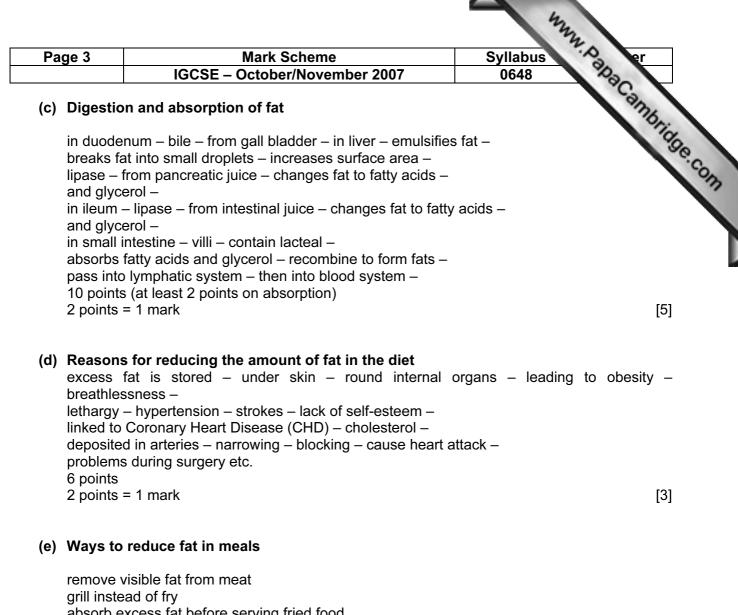
All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2007 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.





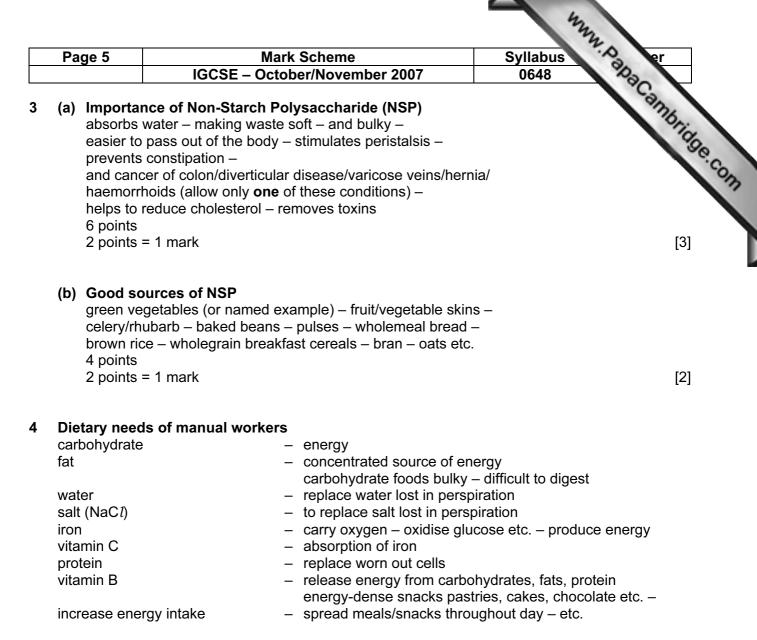
absorb excess fat before serving fried food cut chips thicker – less surface area in contact with fat spread butter thinly reduce consumption of cakes/biscuits eat less chocolate/potato crisps/nuts etc. use skimmed milk/semi-skimmed milk choose reduced fat yoghurt/cream/cheese/mayonnaise etc. 4 points

2 points = 1 mark

[2]

Page 4		Mark Scheme	Syllabus Syllabus				
		IGCSE – October/November 2007	0648 23				
(a	Functio	ns of vitamin A	Syllabus 0648 BhaCambh				
	to make	the pigment 'visual purple'	1				
	to help vision in dim light						
	make mucous membranes moist						
	•	avoid infections					
		f the skin					
	growth of children/bones and teeth 2 functions – 1 mark each						
(b) Animal :	sources of vitamin A					
	milk, che	eese, eggs, oily fish, fish liver oil, liver					
	2 points						
		ources of vitamin A					
		cabbage, watercress, spinach, prunes, apricots, ton					
	2 points		[2				
(c) Deficier	ncy disease					
		ndness/Xerophthalmia					
	1 mark		[1				
(d) Functio	ns of vitamin D					
`	, growth						
		n of bones and or teeth					
		on of calcium					
	2 functio	ns – 1 mark each	[2				
(e		ources of vitamin D					
		n liver oils, oily fish (salmon, tuna, pilchards, macke	rel etc.),				
	••	ilk, cheese, margarine (added by law)					
	3 points						
		od source					
	sunlight 1 point		[2				
	i point		١٢				
(f)		icy disease					
		steomalacia					
	1 mark		[1				

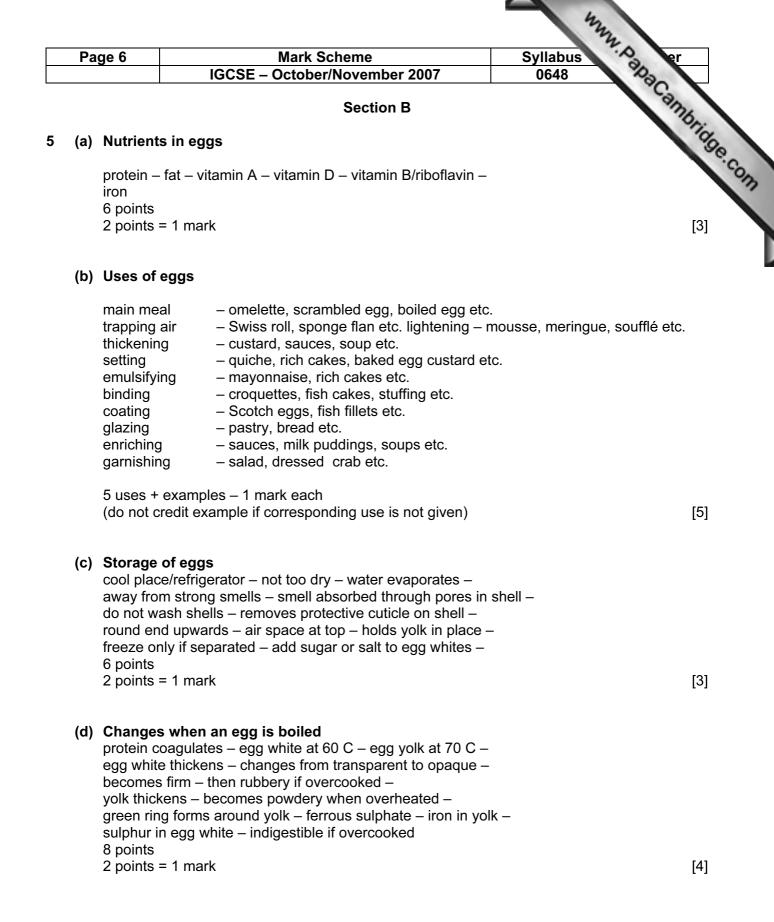
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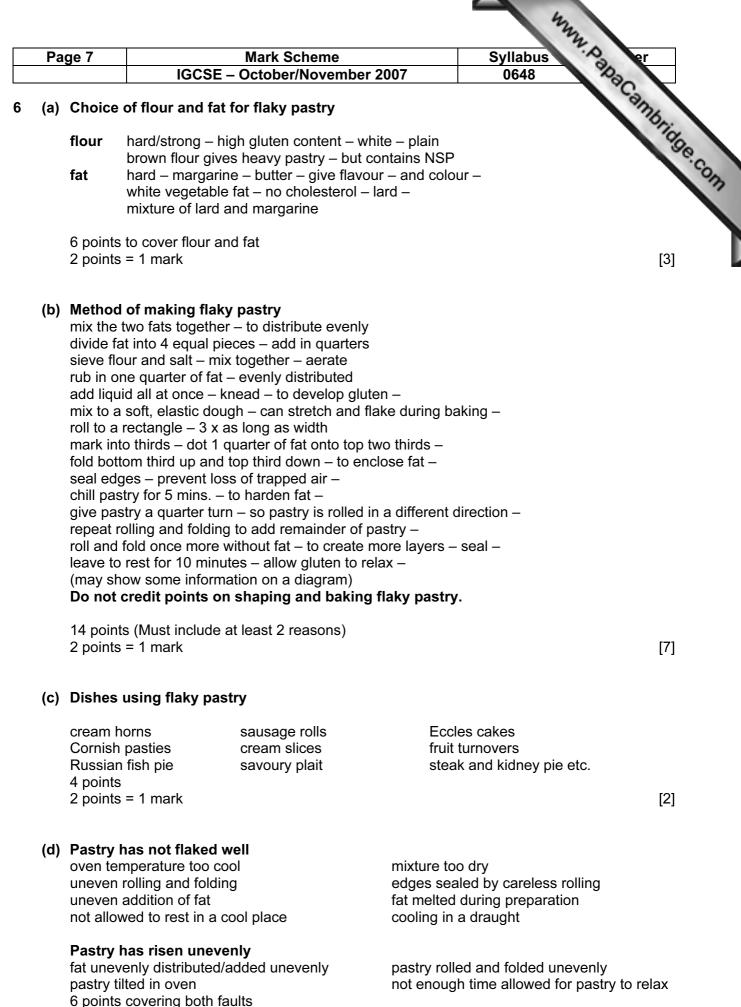


NB – Only credit the above nutrients which are of particular need to manual workers. 6 well-explained points – 1 mark each

[6]

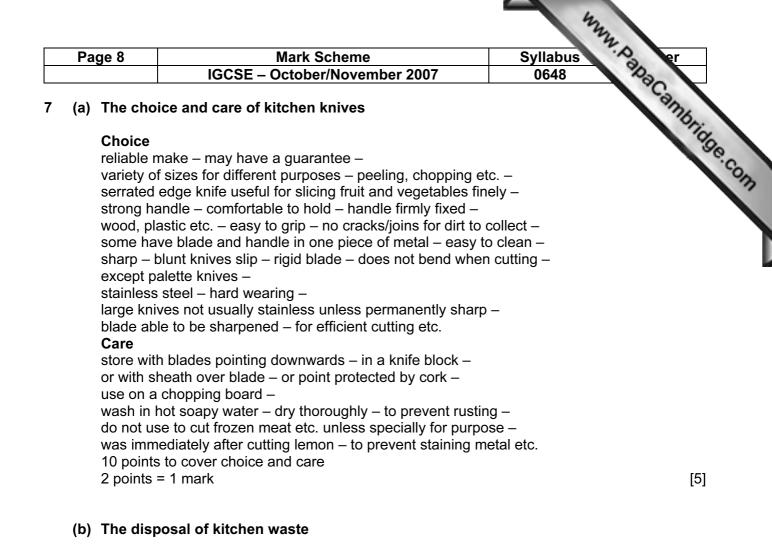
[Section A Total: 40 marks]



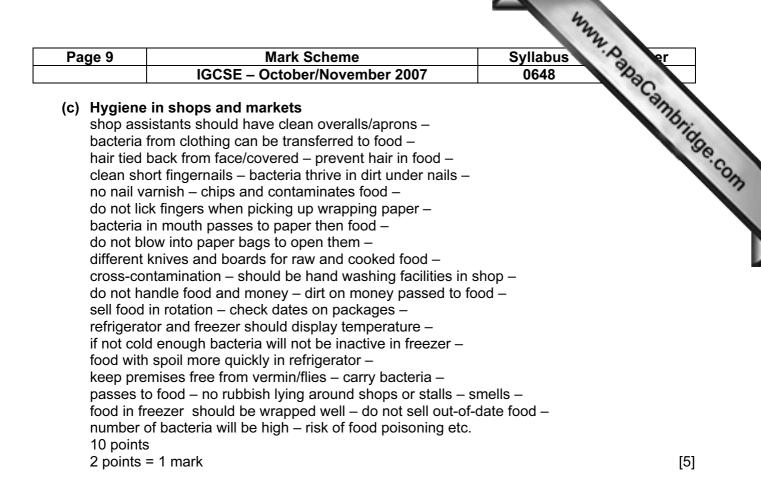


2 points = 1 mark

[3]



empty bin daily - wash daily - dry thoroughly/in sun do not leave water in bin - attracts mosquitoes line with plastic bin liner - easier to empty - keeps bin cleaner disinfect regularly wrap all waste - tie bags - pour away liquid - wrap broken glass clear up spills and mess around bin - prevents flies/insects cover bin tightly - prevents flies etc. rinse and flatten cans - removes smell of food - takes up less space recycle paper, glass, aluminium cans etc. if possible food waste can be put to compost – or fed to animals stand outside bin on bricks - allows air to circulate underneath keep outside bin away from house/open windows so flies do not get into house easily - burn waste when convenient do not pour fat down drains – blocks drain when it hardens – make sure U-bend contains clean water - disinfect at night leave no scraps lying about on work surfaces or floor encourages vermin do not allow bin to overflow – encourages animals/vermin/insects etc. 10 points 2 points = 1 mark



[Section B Total: 45 marks]

		2.
Page 10	Mark Scheme	Syllabus er
	IGCSE – October/November 2007	0648

Section C Answer either 8 (a) or 8 (b)

Cambridge.com (a) Discuss the importance of fruit in the diet and suggest ways of including fruit in family 8 meals.

The answer may include the following knowledge and understanding.

Nutrients in fruit

carbohydrate/sugar	—	bananas, grapes, mango, pears etc.
		dried figs, dates, sultanas etc. fat – avocado pear
vitamin A	_	apricots, mango, melon, peaches etc.
vitamin C	_	oranges, lemons, blackcurrants, grapes, strawberries etc.
nicotinic acid	_	avocado pear, dried apricots, dates figs etc.
calcium	_	blackcurrants, oranges, dried apricots, figs etc.
iron	_	avocado pear, dried apricots, dried figs etc.

Other reasons for including fruit in the diet

high water content - refreshing quick snack - easy to carry - little or no preparation required good source of NSP - filling if on weight reducing diet for efficient working of digestive tract variety of flavour - variety of colour - make meal more attractive variety of textures - can be eaten raw or cooked many ways of serving - can be preserved at home can be grown at home - cheap when in season - easily available quick to prepare and cook - can enjoy food from other lands canned fruit often cheaper than fresh - e.g. peaches, pineapples can be stored at home - used in emergencies - etc.

Ways of using fruit in family meals

as a drink	 orange juice, banana smoothie etc.
in ice cream	 strawberry, lemon sorbet etc.
hot dessert	 Eve's pudding, pineapple upside down, apple crumble, apple pie etc.
cold dessert	 lemon meringue pie, fruit fool, fruit salad
scones	 apple, sultans, cherry etc.
cakes	 apple, cherry, currants etc.
accompaniment	 apple sauce with pork, pineapple with ham
packed meals	 banana, apple etc.
jam	 marmalade, strawberry jam, lemon curd etc.
main dish	 curry, sweet and sour chicken etc.
decoration	 lemon wedges, glace cherries etc.

Page 11		ge 11	Mark Scheme IGCSE – October/November 2007	Syllabus 0648 Part mark 11–15	
3	(a)	Band	Descriptor	Part mark	
		High	 can name several nutrients in fruit can give some functions of those names examples to illustrate sources of nutrients can give several other factors on importance of fruit gives a range of different uses of fruit in family meals names dishes which include fruit understanding of the topic is apparent information is specific and generally accurate all areas of the question addressed 	11–15	
		Middle	 can name a few of the nutrients in fruit a few of the functions noted some named examples of fruit to illustrate some others factors about importance a few different uses of fruit in dishes many dishes using fruit listed not always related to uses some information inaccurate information is not always precise has sound knowledge of some aspects information lacking in detail 	6–10	
		Low	 one or two nutrients mentioned little reference to functions of nutrients lists many dishes containing fruit does not usually relate to use of fruit information is general information is brief not always accurate emphasis is on one aspect of question lack of knowledge will be apparent 	0–5	

Page 12	Mark Scheme	Syllabus 2.8 er
	IGCSE – October/November 2007	0648
the pre	es reasons for cooking food and explain differ eparation of dishes. Iswer may include the following knowledge and	onig
to kill h	ns for cooking food armful bacteria/make food safe to eat – e.g. meat	YM .

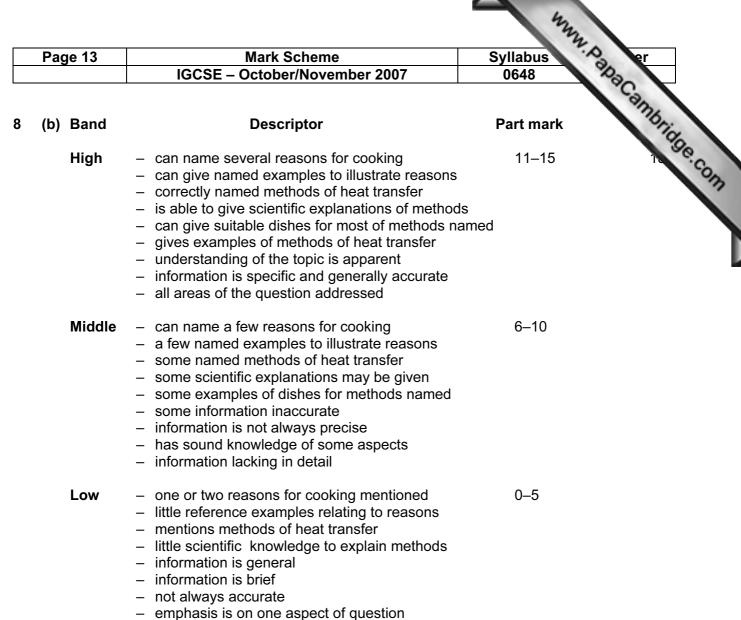
Reasons for cooking food

to kill harmful bacteria/make food safe to eat – e.g. meat to destroy natural toxins - e.g. red kidney beans to preserve - e.g. making fruit into jam, to aid digestion - cooked starch easier to digest - begins in mouth to aid absorption e.g. raw starch in potatoes and flour cannot be easily be absorbed to make food easier to eat - e.g. meat is tenderised to make food more attractive – meat changes from red to brown to develop extractives/flavour - grilled steak, toasted cheese smell stimulates appetite/flow of digestive juices - e.g. curry to provide hot food in cold weather - e.g. soup in winter to reduce bulk/allow more to be eaten - e.g. cabbage create new dishes – e.g. quiche, chocolate cake etc. add variety to diet - e.g. eggs can be cooked in many different ways necessary for some cooking processes – e.g. thickening sauces, baking cakes and biscuits

Methods of transferring heat

conduction - through solids - by contact also occurs within food in microwave cooking molecules vibrate rapidly – adjoining molecules vibrate etc. e.g. metal spoon in hot liquid, pan standing on a hotplate etc. convection - through liquids - and gases molecules rise when heated - colder molecules fall convection currents created etc. e.g. boiling water in pan, heated oven etc. radiation - no medium - through space or vacuum rays from source of heat - fall on food in their path food needs to be turned etc. e.g. grill, barbecue in microwave oven - electromagnetic waves given off - by radiation cause a rise in temperature in the object in path of waves heat transferred within food by conduction etc.

(If microwaves mentioned, should be in context of conduction and radiation.)



lack of knowledge will be apparent

[Section C Total: 15 marks]