OCR
RECOGNISING ACHIEVEMENT

Monday 24 June 2013 – Afternoon

A2 GCE MATHEMATICS (MEI)

4773/01 Decision Mathematics Computation

Candidates answer on the Answer Booklet.

OCR supplied materials:
- 12 page Answer Booklet (OCR12) (sent with general stationery)
- Graph paper
- MEI Examination Formulae and Tables (MF2)

Other materials required:
- Scientific or graphical calculator
- Computer with appropriate software and printing facilities

Duration: 2 hours 30 minutes

* 4 7 7 3 0 1 *

* 4 7 1 5 9 3 0 6 1 3 *

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the spaces provided on the Answer Booklet. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- You are permitted to use a graphical calculator in this paper.
- Final answers should be given to a degree of accuracy appropriate to the context.
- Additional sheets, including computer print-outs, should be fastened securely to the Answer Booklet.
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets **[ ]** at the end of each question or part question.
- In each of the questions you are required to write spreadsheet or other routines to carry out various processes.
- For each question you attempt, you should submit print-outs showing the routine you have written and the output it generates.
- You are not expected to print out and submit everything your routine produces, but you are required to submit sufficient evidence to convince the examiner that a correct procedure has been used.
- The total number of marks for this paper is **72**.
- This document consists of **8** pages. Any blank pages are indicated.

COMPUTING RESOURCES

- Candidates will require access to a computer with a spreadsheet program, a linear programming package and suitable printing facilities throughout the examination.

1 The bread man calls early at a remote mountain village on every third day, including weekends. Ioanna always buys either one or two loaves, randomly and each with probability 0.5.

The following random variable is a good model of Ioanna's daily bread requirements.

Daily requirements (loaves)	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
Probability	$\frac{3}{7}$	$\frac{2}{7}$	$\frac{1}{7}$	$\frac{1}{7}$

(i) Build a spreadsheet simulation of this system and run it for 100 days, starting with a day on which Ioanna starts with half a loaf in stock and on which the bread man calls. **[7]**

(ii) Define two measures of system performance. Add these measures to your simulation. **[2]**

(iii) Repeat your simulation a number of times and report on the behaviour of your two measures. **[4]**

Ioanna's friend advises her that it would be better if she took account of her stock level when purchasing bread. She suggests that Ioanna should purchase one loaf if her stock is 0.75 loaves or more, and two loaves otherwise.

(iv) Investigate and report on how this system performs, comparing it with the original system. **[5]**

2 (This question is concerned only with working days, and ignores weekends.)

Ioanna likes to keep €500 in her current account. Her bank is a small agricultural bank in a rural region, which does not offer internet banking. Ioanna has a separate savings account, and she either transfers money from this to her current account, or vice-versa, to keep the current account balance at €500. However, her instructions to move money take 3 days to be put into effect.

At the close of banking on day 1, Ioanna's current account has a balance of €450, and she issues an instruction to move €50 in from her savings account.

At the end of day 2, the current account contains €520, and she instructs that €20 be moved to her savings account.

At the end of day 3, the current account contains €410, and she instructs that €90 be moved in to it from her savings account.

She continues to operate this strategy in subsequent days.

During day 4, the €50 from her day 1 instruction arrives in the current account. Assume that this is the only change to the current account balance during day 4.

(i) Assuming that there are no changes to the current account in subsequent days other than those following Ioanna's instructions, give a recurrence relation for e_n, the amount in the current account on day n, in terms of e_{n-1} and e_{n-3} ($n \geqslant 4$). **[1]**

(ii) Construct a spreadsheet to show how Ioanna's current account balance varies over a period of 25 working days. **[2]**

Ioanna is promised an improved service in which her instructions are put into effect after 2 working days.

(iii) Give a recurrence relation for e_n, the amount in the current account on day n, in terms of e_{n-1} and e_{n-2} ($n \geqslant 3$) under this new service. **[1]**

(iv) Construct a spreadsheet to show how Ioanna's current account balance would vary under this new service over a period of 25 working days, starting with €450 in the account on day 1, and €520 on day 2. During day 3, €110 leaves the current account and €50 arrives following Ioanna's day 1 instruction. Subsequently the only changes are due to Ioanna's instructions. **[2]**

Ioanna is still unhappy with the fluctuations in the level of her current account, and complains to her bank manager. He cannot improve the bank's service level any further, but he advises her to make her daily adjustments equal to a proportion of the difference between €500 and the amount in her current account, ie so that the daily change is €p(500 – balance), where $0 \leqslant p \leqslant 1$.

(v) Give the new recurrence relation for e_n when Ioanna implements this advice. **[1]**

(vi) Solve the recurrence relation when $p = \frac{2}{9}$, $e_1 = 450$ and $e_2 = 520$. **[9]**

(vii) Construct a spreadsheet to check your answer to part **(vi)**. **[2]**

3 The manager of an athletics club has 8 runners to allocate to positions 1, 2, 3 and 4 in two sprint relay teams. The table shows historical information giving the past mean times (in seconds) of the athletes when running in each of the four positions. She wants to minimise the expected total running time.

position / athlete	1	2	3	4
A	11.12	11.34	11.74	11.63
B	12.01	12.23	11.89	12.17
C	11.24	11.09	11.56	11.65
D	13.34	12.95	12.67	13.01
E	12.54	12.37	12.21	12.45
F	11.87	11.74	11.35	11.21
G	11.52	11.42	11.37	11.74
H	12.08	12.43	12.32	12.57

The manager sets up the problem as an allocation problem. There are 8 athletes to be allocated to 8 positions. Numbers 1, 2, 3 and 4 represent the positions in one team, and numbers 5, 6, 7 and 8 represent the corresponding positions in the other team.

(i) Set up an LP to solve this allocation problem. Solve it and interpret your solution. **[7]**

(ii) Athlete C, one of the fastest, complains that this method of team selection will not maximise his chances of winning a medal. Why might he argue thus? **[1]**

(iii) Set up LPs to choose the best team out of the 8 athletes, and their best positions, and the best positions for the athletes in the second team. Solve your LPs and interpret the solutions. **[10]**

4 Each of the customers at a restaurant orders a main meal. In addition, some have a starter, some have a dessert, and some have both starter and dessert.

The individual dishes vary in price, but the management is encouraging custom by making two offers: any starter and main for £15; any main and dessert for £10.

In addition the management is encouraging custom by not restricting the offers to orders placed by individuals. So, for instance, if two people share a meal in which one has a starter, a main and a dessert, and the other has just a main, then they could choose to pay £25, ie £15 for a starter and a main, and £10 for a main and a dessert.

A party of 8 diners orders the following dishes.

5 starters priced at £8.50, £7.65, £4.32, £5.67 and £5.67
8 mains priced at £12.42, £9.85, £13.36, £21.25, £12.42, £17.85, £13.63 and £13.63
4 desserts priced at £6.85, £5.32, £3.42 and £10.18

The following LP computes the minimum price payable by the party.

```
min   8.50s1+7.65s2+4.32s3+5.67s4+5.67s5
      +12.42m1+9.85m2+13.36m3+21.25m4+12.42m5+17.85m6+13.63m7+13.63m8
      +6.85d1+5.32d2+3.42d3+10.18d4
      +15sm+10md
st    m1+m2+m3+m4+m5+m6+m7+m8+sm+md=8
      s1+s2+s3+s4+s5+sm=5
      d1+d2+d3+d4+md=4
end
int 17
```

(i) Run the LP, and interpret the output. **[3]**

(ii) Explain what the variables represent, and the meaning of "int 17". **[6]**

(iii) The optimal solution involves the party paying separately for the cheapest starter. Explain why this is so, when the cheapest starter costs more than the cheapest dessert. **[1]**

To encourage even more custom the restaurant's management considers introducing a special price of £17.50 for any 3-course meal, starter, main and dessert, with the same rules as before, ie which dishes individual party members eat is ignored in the pricing.

(iv) Modify the LP to find the minimum price now payable by the party of 8. **[5]**

(v) Run your modified LP and show that the new offer is of no worth to the party. **[1]**

(vi) Verify that, to be of any worth at all to the party, the 3-course meal would have to be priced at £15.14. Interpret the corresponding solution. **[2]**

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GCE

Mathematics (MEI)

Advanced GCE

Unit **4773:** Decision Mathematics Computation

Mark Scheme for June 2013

Oxford Cambridge and RSA Examinations

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, Cambridge Nationals, Cambridge Technicals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

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 should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

Annotations and abbreviations

Annotation in scoris	**Meaning**
✓and ✖	
BOD	Benefit of doubt
FT	Follow through
ISW	Ignore subsequent working
M0, M1	Method mark awarded 0, 1
A0, A1	Accuracy mark awarded 0, 1
B0, B1	Independent mark awarded 0, 1
SC	Special case
^	Omission sign
MR	Misread
Highlighting	
Other abbreviations in mark scheme	**Meaning**
E1	Mark for explaining
U1	Mark for correct units
G1	Mark for a correct feature on a graph
M1 dep*	Method mark dependent on a previous mark, indicated by *
cao	Correct answer only
oe	Or equivalent
rot	Rounded or truncated
soi	Seen or implied
www	Without wrong working

Subject-specific Marking Instructions for GCE Mathematics (MEI) Decision strand

a Annotations should be used whenever appropriate during your marking.

The A, M and B annotations must be used on your standardisation scripts for responses that are not awarded either 0 or full marks. It is vital that you annotate standardisation scripts fully to show how the marks have been awarded.

For subsequent marking you must make it clear how you have arrived at the mark you have awarded.

b An element of professional judgement is required in the marking of any written paper. Remember that the mark scheme is designed to assist in marking incorrect solutions. Correct *solutions* leading to correct answers are awarded full marks but work must not be judged on the answer alone, and answers that are given in the question, especially, must be validly obtained; key steps in the working must always be looked at and anything unfamiliar must be investigated thoroughly.

Correct but unfamiliar or unexpected methods are often signalled by a correct result following an *apparently* incorrect method. Such work must be carefully assessed. When a candidate adopts a method which does not correspond to the mark scheme, award marks according to the spirit of the basic scheme; if you are in any doubt whatsoever (especially if several marks or candidates are involved) you should contact your Team Leader.

c The following types of marks are available.

M
A suitable method has been selected and *applied* in a manner which shows that the method is essentially understood. Method marks are not usually lost for numerical errors, algebraic slips or errors in units. However, it is not usually sufficient for a candidate just to indicate an intention of using some method or just to quote a formula; the formula or idea must be applied to the specific problem in hand, eg by substituting the relevant quantities into the formula. In some cases the nature of the errors allowed for the award of an M mark may be specified.

A
Accuracy mark, awarded for a correct answer or intermediate step correctly obtained. Accuracy marks cannot be given unless the associated Method mark is earned (or implied). Therefore M0 A1 cannot ever be awarded.

B
Mark for a correct result or statement independent of Method marks.

E

A given result is to be established or a result has to be explained. This usually requires more working or explanation than the establishment of an unknown result.

Unless otherwise indicated, marks once gained cannot subsequently be lost, eg wrong working following a correct form of answer is ignored. Sometimes this is reinforced in the mark scheme by the abbreviation isw. However, this would not apply to a case where a candidate passes through the correct answer as part of a wrong argument.

d When a part of a question has two or more 'method' steps, the M marks are in principle independent unless the scheme specifically says otherwise; and similarly where there are several B marks allocated. (The notation 'dep *' is used to indicate that a particular mark is dependent on an earlier, asterisked, mark in the scheme.) Of course, in practice it may happen that when a candidate has once gone wrong in a part of a question, the work from there on is worthless so that no more marks can sensibly be given. On the other hand, when two or more steps are successfully run together by the candidate, the earlier marks are implied and full credit must be given.

e The abbreviation ft implies that the A or B mark indicated is allowed for work correctly following on from previously incorrect results. Otherwise, A and B marks are given for correct work only — differences in notation are of course permitted. A (accuracy) marks are not given for answers obtained from incorrect working. When A or B marks are awarded for work at an intermediate stage of a solution, there may be various alternatives that are equally acceptable. In such cases, exactly what is acceptable will be detailed in the mark scheme rationale. If this is not the case please consult your Team Leader.

Sometimes the answer to one part of a question is used in a later part of the same question. In this case, A marks will often be 'follow through'. In such cases you must ensure that you refer back to the answer of the previous part question even if this is not shown within the image zone. You may find it easier to mark follow through questions candidate-by-candidate rather than question-by-question.

f Wrong or missing units in an answer should not lead to the loss of a mark unless the scheme specifically indicates otherwise. Candidates are expected to give numerical answers to an appropriate degree of accuracy, with 3 significant figures often being the norm. Small variations in the degree of accuracy to which an answer is given (e.g. 2 or 4 significant figures where 3 is expected) should not normally be penalised, while answers which are grossly over- or under-specified should normally result in the loss of a mark. The situation regarding any particular cases where the accuracy of the answer may be a marking issue should be detailed in the mark scheme rationale. If in doubt, contact your Team Leader.

g Rules for replaced work

If a candidate attempts a question more than once, and indicates which attempt he/she wishes to be marked, then examiners should do as the candidate requests.

If there are two or more attempts at a question which have not been crossed out, examiners should mark what appears to be the last (complete) attempt and ignore the others.

NB Follow these maths-specific instructions rather than those in the assessor handbook.

h For a *genuine* misreading (of numbers or symbols) which is such that the object and the difficulty of the question remain unaltered, mark according to the scheme but following through from the candidate's data. A penalty is then applied; 1 mark is generally appropriate, though this may differ for some units. This is achieved by withholding one A mark in the question.

Note that a miscopy of the candidate's own working is not a misread but an accuracy error.

Question			Answer	Marks	Guidance
1	(i)		modelling usage	M1	"lookup" or equivalent
				A1	
			modelling delivered	M1	"lookup" or equivalent
				A1	
			modelling end stock	M1	
				A1	
			start stock = max(previous end stock, 0)	B1	
				[7]	
1	(ii)		outages ... number of days when supplies run out	B1	
			either max stock or total purchases	B1	
				[2]	
1	(iii)		Incorporation of outage count into s/s	B1	
			Outages very variable and often large ... anything between 0 and 25	B1	
			Incorporation of other measure into s/s	B1	
			Max stock variable, but not as variable as outages ... 3 to 7 ish or		
			Purchases ... around 50 (Allowed here though not a good measure. Not allowed in (iv).	B1	
				[4]	
1	(iv)		New modelling for number purchased	M1	use of "IF"
				A1	correct
			Outages ... reduced in variability and number	B1	
			Max stock consistently 2.25 or thereabouts	B1	Note ... no marks for 50 purchased here
			Improvement	B1	... justified!
				[5]	

Question			Answer	Marks	Guidance
2	(i)		$e_i = e_{i-1} + 500 - e_{i-3}$	B1 **[1]**	cao
2	(ii)		450 520 410 460 440 530 570 630 600 530 400 300 270 370 570 800 930 860 560 130 -230 -290 80 810 1600	M1 A1 **[2]**	third order recurrence cao for at least 25 days, including starting days.
2	(iii)		$e_n = e_{n-1} + 500 - e_{n-2}$	B1 **[1]**	cao
2	(iv)		450 520 460 440 480 540 560 520 460 440 480 540 560 520 460 440 480 540 560 520 460 440 480 540 560	M1 A1 **[2]**	second order recurrence cao for at least 25 days, including starting days.
2	(v)		$e_n = e_{n-1} + p(500 - e_{n-2})$	B1 **[1]**	
2	(vi)		Auxiliary equation ... $x^2 - x + 2/9 = 0$ Solutions ... 2/3 and 1/3 General form ... $A(2/3)^n + B(1/3)^n + K$ Simultaneous equations using 450 and 520 Solution ... $165(2/3)^n - 480(1/3)^n + 500$	B1 B1 B1 B1 B2 M1 A2 **[9]**	or equivalent both 2/3 and 1/3 + K Candidates may have 3 simultaneous equations or may know what K needs to be. solving simultaneous eqs –1 each error, cao
2	(vii)		450.00 520.00 531.11 526.67 519.75 513.83 509.44 506.36 504.27 502.85 501.90 501.27 500.85 500.57 500.38 500.25 500.17 500.11 500.07 500.05 500.03 500.02 500.01 500.01 500.01 NB ... might have day 3 = 460 different if part (v) followed for day 3.	M1 A1 **[2]**	modelling their recurrence relation and their recurrence solution cao

Question			Answer	Marks	Guidance
3	(i)		min 11.12a1+11.34a2+11.74a3+11.63a4+11.12a5+11.34a6+11.74a7+11.63a8 +12.01b1+12.23b2+11.89b3+12.17b4+12.01b5+12.23b6+11.89b7+12.17b8 +11.24c1+11.09c2+11.56c3+11.65c4+11.24c5+11.09c6+11.56c7+11.65c8 +13.34d1+12.95d2+12.67d3+13.01d4+13.34d5+12.95d6+12.67d7+13.01d8 +12.54e1+12.37e2+12.21e3+12.45e4+12.54e5+12.37e6+12.21e7+12.45e8 +11.87f1+11.74f2+11.35f3+11.21f4+11.87f5+11.74f6+11.35f7+11.21f8 +11.52g1+11.42g2+11.37g3+11.74g4+11.52g5+11.42g6+11.37g7+11.74g8 +12.08h1+12.43h2+12.32h3+12.57h4+12.08h5+12.43h6+12.32h7+12.57h8	M1 A1	objective
			st a1+a2+a3+a4+a5+a6+a7+a8=1 b1+b2+b3+b4+b5+b6+b7+b8=1 c1+c2+c3+c4+c5+c6+c7+c8=1 d1+d2+d3+d4+d5+d6+d7+d8=1 e1+e2+e3+e4+e5+e6+e7+e8=1 f1+f2+f3+f4+f5+f6+f7+f8=1 g1+g2+g3+g4+g5+g6+g7+g8=1 h1+h2+h3+h4+h5+h6+h7+h8=1	B1	athlete constraints
			a1+b1+c1+d1+e1+f1+g1+h1=1 a2+b2+c2+d2+e2+f2+g2+h2=1 a3+b3+c3+d3+e3+f3+g3+h3=1 a4+b4+c4+d4+e4+f4+g4+h4=1 a5+b5+c5+d5+e5+f5+g5+h5=1	B1	position constraints
			a6+b6+c6+d6+e6+f6+g6+h6=1 a7+b7+c7+d7+e7+f7+g7+h7=1 a8+b8+c8+d8+e8+f8+g8+h8=1	B1	running
			end		

Question			Answer	Marks	Guidance
			or min 11.12a1+11.34a2+11.74a3+11.63a4 +12.01b1+12.23b2+11.89b3+12.17b4 +11.24c1+11.09c2+11.56c3+11.65c4+13.34d1+12.95d2+12.67d3+13.01d4 +12.54e1+12.37e2+12.21e3+12.45e4+11.87f1+11.74f2+11.35f3+11.21f4 +11.52g1+11.42g2+11.37g3+11.74g4+12.08h1+12.43h2+12.32h3+12.57h4 st a1+a2+a3+a4 =1 b1+b2+b3+b4 =1 c1+c2+c3+c4 =1 d1+d2+d3+d4 =1 e1+e2+e3+e4 =1 f1+f2+f3+f4 =1 g1+g2+g3+g4 =1 h1+h2+h3+h4 =1 a1+b1+c1+d1+e1+f1+g1+h1=2 a2+b2+c2+d2+e2+f2+g2+h2=2 a3+b3+c3+d3+e3+f3+g3+h3=2 a4+b4+c4+d4+e4+f4+g4+h4=2 end		
			e.g. 1 2 3 4 H G B F 46.60	B1	teams cao
			5 6 7 8 A C D E 47.33 93.93 total	B1 **[7]**	times cao
3	**(ii)**		Minimises total time for both teams. He will want to minimise the time for the first team, then do what is best with the rest.	B1 **[1]**	

Question			Answer	Marks	Guidance
3	(iii)		min 11.12a1+11.34a2+11.74a3+11.63a4 +12.01b1+12.23b2+11.89b3+12.17b4 +11.24c1+11.09c2+11.56c3+11.65c4 +13.34d1+12.95d2+12.67d3+13.01d4 +12.54e1+12.37e2+12.21e3+12.45e4 +11.87f1+11.74f2+11.35f3+11.21f4 +11.52g1+11.42g2+11.37g3+11.74g4 +12.08h1+12.43h2+12.32h3+12.57h4 st a1+a2+a3+a4<1 b1+b2+b3+b4<1 c1+c2+c3+c4<1 d1+d2+d3+d4<1 e1+e2+e3+e4<1 f1+f2+f3+f4<1 g1+g2+g3+g4<1 h1+h2+h3+h4<1 a1+b1+c1+d1+e1+f1+g1+h1=1 a2+b2+c2+d2+e2+f2+g2+h2=1 a3+b3+c3+d3+e3+f3+g3+h3=1 a4+b4+c4+d4+e4+f4+g4+h4=1 end	B1 M1 A1 B1	objective < ... i.e. inequality
			1 2 3 4 A C G F 44.79	B1	

Question			Answer	Marks	Guidance
3	(iii)		min 12.01b1+12.23b2+11.89b3+12.17b4 +13.34d1+12.95d2+12.67d3+13.01d4 +12.54e1+12.37e2+12.21e3+12.45e4 +12.08h1+12.43h2+12.32h3+12.57h4 st b1+b2+b3+b4=1 d1+d2+d3+d4=1 e1+e2+e3+e4=1 h1+h2+h3+h4=1 b1+d1+e1+h1=1 b2+d2+e2+h2=1 b3+d3+e3+h3=1 b4+d4+e4+h4=1 end 5 6 7 8 H E D B 49.29 Note 44.79 + 49.29 = 94.08	M1 A1 B1 B1 B1 **[10]**	selection of remaining athletes

Question			Answer	Marks	Guidance
4	(i)		Solution is 4 starter/main offers, 4 main/dessert offers and the £4.32 starter, at a cost of £104.32.	B1 B1 B1 **[3]**	coding and running order ft cost ft
4	(ii)		"s" variables are indicators for starters, "m" variables are indicators for mains and "d" variables are indicators for desserts. "sm" indicates the number of starter/main offers. "md" indicates the number of main/dessert offers. Use of "number" twice. "int 17" declares that the first 17 variables are indicator variables. These take the values 0 or 1 and indicate in the objective whether the individual dishes are paid for or not.	B1 M1 M1 A1 M1 E1 **[6]**	
4	(iii)		Paying separately for a dessert instead of a starter would mean sm=5 and md=3. So the alternative would cost an extra £(15.00 – 10.00 + 3.42 – 4.32).	B1 **[1]**	
4	(iv)		min 8.50s1+7.65s2+4.32s3+5.67s4+5.67s5 +12.42m1+9.85m2+13.36m3+21.25m4+12.42m5+17.85m6+13.63m7+13.63m8 +6.85d1+5.32d2+3.42d3+10.18d4 +15sm +10md +17.5smd st m1+m2+m3+m4+m5+m6+m7+m8+sm+md+smd=8 s1+s2+s3+s4+s5+sm+smd=5 d1+d2+d3+d4+md+smd=4 end int 17	M1 A1 A1 A1 **[5]**	new variable in objective correctly in constraint ditto ditto
4	(v)		Same solution ... smd=0	B1 **[1]**	
4	(vi)		Running at smd cost of £15.15 and at cost of £15.14. Solution is one 3-course offer, three of each 2-course offer, the £9.85 main and the £4.32 starter (at total cost of £104.31).	B1 B1 **[2]**	

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OCR is an exempt Charity

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