



## **Applied Science**

**OCR GCE Unit G629 Synthesising Organic Chemicals** 

## **Unit Recording Sheet**

Please read the instructions p	rinted at	the end of this form. One of these sheet	ts, suitably completed, should be	attached to the as	ssessed v	vork of <b>each</b> cand	idate.				
Unit Title         Synthesising Organic Chemicals         Unit Code         G629         Session					June	Year	2	0			
Centre Name							Centre Numb	er			
Candidate Name							Candidate Nu	Imber			
Evidence: The candidate need	ds to prod	duce evidence of their investigation in to	synthesising organic chemicals.								
		Criteria				Теа	Teacher Comment			rk	Page No.
AO1(a).1: Candidate will sh basic knowledge and understanding of the classifications of organic compounds and will be able • name organic compounds • identify functional groups • draw structural and displa formulae • explain isomerism;	e to S	AO1(a).2: candidate will show knowledge and understanding of the classifications of a range of organic compounds and be able to • name organic compounds • identify functional groups • draw structural and displayed formulae • explain isomerism and discuss the difference in properties between isomers:	AO1(a).3: candidate will sh knowledge and understand classifications of a wide ran compounds and will be abl • name organic compound • identify functional groups • draw structural and displa • explain the importance of relation to the difference between isomers;	ling of the nge of organic e to s within molecule ayed formulae f isomerism with							
their research will show son evidence of selection and suitable referencing;		their research will show evidence of the use of selection from a range of sources and suitable referencing;	candidate will show relevant information that will be clear referenced.								
	[0 1]	[2]			[3]				_		
<ul> <li>AO1(b).1: Candidate will sh understanding of <b>four</b> react types by</li> <li>giving examples using appropriate nomenclature</li> <li>relating the reaction type for specific functional group;</li> </ul>	tion	AO1(b).2: candidate will show understanding of <b>four</b> of the reaction types listed in the specifications by • selecting examples using appropriate nomenclature • relating the reaction type to the specific functional group; candidate will describe the reaction types using correct scientific terminology;	<ul> <li>AO1(b).3: candidate will sh and explain of at least five listed in the specifications h</li> <li>giving examples using ap nomenclature</li> <li>relating the reaction type functional group candidate will explain the n correct scientific terminolog information will be clearly p</li> </ul>	preaction types py propriate to the specific eaction types us gy;							
	[0 1]	information will be clearly presented; [2]			[3]						

URS833 Revised September 2014

	Criteria	Teacher Comment	Mark	Page No.	
AO1(c).1: Candidate will research two drug types listed in the specifications and show a basic knowledge and understanding of therapeutic drugs, their usage and mode of action in the body; scientific terms and conventions will have generally been used correctly in the report with corrected punctuation and grammar;	AO1(c).2: candidate will research three of the drug types listed in the specifications and show detailed knowledge and understanding of therapeutic drugs, their usage and mode of action in the body; scientific terms and conventions will have been used correctly in the report with correct punctuation and grammar;	AO1(c).3: candidate will research at least three drug types listed in the specifications and show a detailed knowledge and understanding of therapeutic drugs, their usage and mode of action in the body; explanations of the therapeutic effect of drugs will be given and the use of the drugs evaluated; scientific terms and conventions will have been used correctly in explanations throughout, with correct spelling, punctuation			
[0 1]	[2 3]	and grammar. [4]			
AO2(a).1: Candidate will produce information on a process used to manufacture an organic compound; candidate will identify most of the factors needed to be considered to ensure a safe and economic process, selecting some appropriate sources and presenting information clearly;	AO2(a).2: candidate will show researched evidence of a process used to manufacture an organic compound; candidate will identify all the factors needed to be considered to ensure a safe and economic process, selecting a range of appropriate sources and interpreting information clearly;	AO2(a).3: candidate will show detailed and selective research on a process used to manufacture an organic compound; candidate will describe the factors needed to be considered to ensure a safe and economic process, using a wide range of appropriate sources and interpreting information clearly, evaluating and justifying this information, and presenting it clearly, concisely and coherently.			
[0 1 2]	[3]	[4 5]			
AO2(b).1: Candidate will find and use information about some of the costs and benefits of the organic compound and its manufacture to	AO2(b).2: candidate will find and explain information about the costs and benefits of the organic compound and its manufacture to	AO2(b).3: candidate will find, explain and evaluate information about the costs and benefits of the organic compound and its manufacture to			
	<ul> <li>individuals</li> </ul>	individuals			
<ul> <li>individuals</li> <li>companies</li> <li>society;</li> </ul>	<ul> <li>companies</li> <li>society;</li> <li>information will be clearly</li> <li>presented;</li> </ul>	<ul> <li>companies</li> <li>society;</li> <li>information will be presented clearly and concisely.</li> </ul>			
[0 1 2] AO2(c).1: Candidate will	[3] AO2(c).2: candidate will	[4 5] AO2(c).3: candidate will demonstrate that they			
demonstrate that they have completed straightforward calculations either related to their research or to their preparations; some assistance may have been used;	demonstrate that they have completed simple and complex calculations correctly either related to their research or to their preparations with little assistance;	have completed correctly and independently complex calculations either related to their research or to their preparations.			
[0 1]	[2 3]	[4]			

	Criteria	Teacher Comment	Mark	Page No.	
AO3(a).1: Candidate will record evidence of the safe completion of the preparation and purification of two organic compounds, one of which is a useful drug; candidate will give evidence of the use of valid risk assessments;	AO3(a).2: candidate will record evidence of the planning and the safe completion of the preparation and purification of two organic compounds, one of which is a useful drug, using a range of techniques; candidate will give evidence that they have used COSHH data to produce valid risk assessments	AO3(a).3: candidate will record evidence of independent planning and the skilful and safe completion of the preparation and purification of two organic compounds, one of which is a useful drug, using a wide range of techniques and justifying reasons for the use of such techniques; candidate will independently produce and use risk assessments using COSHH data where appropriate.			110.
[0 1 2 3 4]	with some assistance; [5 6 7 8]	[9 10]			
AO3(b).1: Candidate will make and record some observations and measurements for both preparations and purifications and display information clearly;	AO3(b).2: candidate will make and record in a suitable format observations and measurements from both preparations and purifications to the appropriate level of precision;	AO3(b).3: candidate will make and record accurately all relevant observations and measurements from both preparations, with the appropriate precision, and display all information clearly and logically.			
[0 1]	[2]	[3 4]			
AO3(c).1: Candidate will provide evidence of some processing and interpretation of the results;	AO3(c).2: candidate will provide evidence of the processing of results from both preparations; the processing will be set out clearly;	AO3(c).3: candidate will provide correct processing of all the results from both preparations; the processing will be set out clearly and logically.			
[0 1 2]	[3 4]	[5 6]			
AO3(d).1: Candidate will draw some conclusions related to both preparations and give a basic evaluation of the practical work; [0 1 2]	AO3(d).2: candidate will draw conclusions with explanations related to the outcomes of both preparations and evaluate the practical work suggesting alternative techniques; [3 4]	AO3(d).3: candidate will draw detailed conclusions explaining and evaluating both practicals and suggesting alternative techniques or routes where appropriate. [5 6]			
<b>.</b>			Total/50		
If this work is a re-sit, please tick	Session and Year of previous submis	ssion Jan / June <b>2</b> 0 Please	tick to indicate this work has been standardised internally		

Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website (<u>www.ocr.org.uk</u>).

## **Guidance on Completion of this Form**

- 1 **One** sheet should be used for each candidate.
- 2 Please ensure that the appropriate boxes at the top of the form are completed.
- 3 Please enter *specific* page numbers where evidence can be found in the portfolio, and where possible, indicate to which part of the text in the mark band the evidence relates.
- 4 Circle the mark awarded for each strand of the marking criteria in the appropriate box and also enter the circled mark in the final column.
- 5 Add the marks for the strands together to give a total out of 50. Enter this total in the relevant box.

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**G629/URS** 

Oxford Cambridge and RSA Examinations

URS833 Revised September 2014