Applied ICT

OCR GCE H515/H715 Unit G056
Unit Recording Sheet

Please read the instructions before completing this form

Examination Session		Year	

Unit Code	G056	Unit Title	Program Design, Production and Testing

Centre Number		Centre Name	

Candidate Number		Candidate Name	

Evidence: The candidate will produce: a working program with complete documentation to meet a given user requirement. The candidate's evidence needs to include: a program specification to meet the given requirement and describe how their specification meets the program requirements and how they have considered the user's needs; a program design arising from their specification and an analysis of the design methods they have used; an annotated modular program to realise the design, which must include at least one data structure, all data types, all control structures and all appropriate operators listed in the programming section; test documentation including a test plan with valid, invalid and boundary data, expected results, actual results and changes identified as a result of testing; a program review and evaluation report including an evaluation of your their performance.

If work is a re-sit, please tick		Session and Year of previous submission	January/June	**2**	**0**		Please tick to indicate this work has been standardised internally	

A.(i)1 Criteria (0 - 1 - 2 marks)

	Comment *Tick ☐ for extra space on page 4*	**Page**

• The candidate shows that they have developed their skills by developing a specification which identifies some inputs, outputs and processing requirements for the given program requirement;

A.(i)2 Criteria (3 - 4 marks)

• The candidate shows that they have extended their skills by developing a specification which identifies most inputs, outputs and processing requirements for the given program requirement;

A.(i)3 Criteria (5 - 6 marks)

• The candidate shows that they have used their initiative to extend and enhance their skills by developing a clear and full specification which identifies all inputs, outputs and processing requirements for the given program requirement.

Mark (Max 6)

A(ii).1 Criteria (0 - 1 - 2 marks)

	Comment *Tick ☐ for extra space on page 4*	**Page**

• The candidate applies their knowledge and skills to briefly describe how their specification meets the requirements of a straightforward problem, considering the user's needs;

A(ii).2 Criteria (3 - 4 marks)

• The candidate applies their knowledge and skills to describe how their specification meets the requirements of a complex problem and how they have identified the users' needs;

A(ii).3 Criteria (5 - 6 marks)

• The candidate applies their knowledge and skills to fully and clearly describe how their specification meets the requirements of a complex problem and fully considers how the user's needs will be met.

Mark (Max 6)

B(i).1 Criteria (0 - 1 - 2 - 3 marks)

	Comment *Tick ☐ for extra space on page 4*	**Page**

• The candidate demonstrates knowledge of design techniques by using some appropriate techniques, such as pseudocode, flowcharts, event-action charts, to design processes;
• the candidate designs input screens, output formats, validation and verification, data structures and at least one file structure;

B(i).2 Criteria (4 - 5 - 6 marks)

• The candidate demonstrates knowledge of different design techniques by using a range of appropriate techniques such as pseudocode, flowcharts, event-action charts, to design processes;
• the candidate's designs are accurate and cover the whole program (input, output, processes, data structures, all file structures and file organisation);

B(i).3 Criteria (7 - 8 marks)

• The candidate demonstrates thorough, detailed knowledge of formal and informal design techniques by using a structured design method and a wide range of appropriate techniques, such as pseudocode, flowcharts, event-action charts;
• the candidate's designs are accurate, clear and complete and cover the whole program (input, output, processes, data structures, all file structures and file organisation).;

Mark (Max 8)

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B(ii).1 Criteria (0 - 1 - 2 marks)	**Comment** *Tick* ☐ *for extra space on page 4*	**Page**
• The candidate applies their knowledge and skills to comment on the appropriateness of the design methods they used and identifies areas for improvement;		
B(ii).2 Criteria (3 - 4 marks)		
• The candidate applies their knowledge and skills to analyse the appropriateness of the design methods they used by describing strengths and weaknesses and suggesting improvements;		
B(ii).3 Criteria (5 - 6 marks)		**Mark** **(Max 6)**
• The candidate applies their knowledge and skills to analyse the appropriateness and effectiveness of the design methods they used by describing strengths and weaknesses and showing how they have modified their design methods to address the identified weaknesses.		
C.1 Criteria (0 - 1 - 2 - 3 marks)	**Comment** *Tick* ☐ *for extra space on page 4*	**Page**
• The candidate shows that they have developed their skills by producing a program from their specification and design; • the candidate's program meets most of the original requirements;		
C.2 Criteria (4 - 5 - 6 marks)		
• The candidate shows that they have extended their skills by producing a fully working program from their specification and design; • The candidate's program is modular, meets most of the original requirements and is easy to use;		
C.3 Criteria (7 - 8 - 9 marks)		**Mark** **(Max 9)**
• The candidate shows that they have used their initiative to extend and enhance their skills by producing a fully working program with clear and fluent annotation; • the candidate's program is modular, meets all original requirements, is easy to use and makes full use of all appropriate data structures, data types, control structures and operators.		
D.1 Criteria (0 - 1 - 2 marks)	**Comment** *Tick* ☐ *for extra space on page 4*	**Page**
• The candidate produces a test plan and documents test results that cover all data validation;		
D.2 Criteria (3 - 4 marks)		
• The candidate produces a test plan with valid, invalid and boundary data and documents test results to cover all eventualities;		
D.3 Criteria (5 - 6 marks)		**Mark** **(Max 6)**
• The candidate produces a test plan that covers all paths and user operations as well as all valid, invalid and boundary data, documenting test results to cover all eventualities and using the results to refine the solution.		

E.1 Criteria (0 - 1 - 2 - 3 marks)	Comment *Tick ☐ for extra space on page 4*	Page
• The candidate comments on the effectiveness of their solution and identifies at least one improvement that they could make; • the candidate comments on their actions and role in solving the problem and identifies areas for improvement; • the candidate's report may contain errors in spelling, punctuation and grammar;		
E.2 Criteria (4 - 5 - 6 marks)		
• The candidate comments on the effectiveness of their solution by identifying strengths and weaknesses and by considering the problems found during testing; • the candidate comments on how they could have reduced testing errors by changes to their design; • the candidate includes an analysis of their own performance by identifying strengths and weaknesses, with some suggestions for improvement to the overall process; • the candidate's report contains few spelling, punctuation and grammar errors;		
E.3 Criteria (7 - 8 - 9 marks)		
• The candidate provides a critical analysis of their solution, taking account of user feedback, to identify the strengths and weaknesses; • the candidate explains refinements that could be made to the solution as a result of their analysis; • the candidate includes an analysis on their own performance by identifying strengths and weaknesses and uses this analysis to show how they will address these issues to be more effective in the future; • the candidate's report is consistently well-structured and there will be few, if any, spelling, punctuation and grammar errors.		**Mark** **(Max 9)**
Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website (www.ocr.org.uk). The completed Centre Authentication form CCS160 **must** accompany the MS1 when it is sent to the moderator	**MARK TOTAL**	

Guidance on Completion of this Form

1 **One** form 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 Enter the mark awarded for each strand of the marking criteria in the appropriate box and also enter the final mark in the total column.

5 Add the marks for the strands together to give a total out of 50. Enter this total in the relevant box.

Extra Comment (please indicate to which Criteria comments refer)

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