OCR Oxford Cambridge and RSA

Please read the instructions printed at the end of this sheet before completing this form. One of these cover sheets, suitably completed, should be attached to the assessed work of each candidate in the moderation sample.

Unit Title	Programming Project		Unit Code	J276 (03/04)	Session	June	Year		2	0		
Centre Name						Centre Number						
Candidate Name						Candidate Number						

Programming Techniques (0-12 Marks)

Section Mark	Supporting Comments

Lower Band (1-4)	Middle Band (5-8)	Upper Band (9-12)
• There is an attempt to program a solution to solve component parts of the task using few of the techniques identified • Code may be minimal, disorganised or hard to follow • Component parts of the task may be trivial, incomplete or not attempted	• There is an attempt to program a solution to most component parts of the task using several techniques. • The code is mostly correct. • The task is clearly broken into its component parts and there are links to the design. • A good range of techniques are used appropriately, giving a working solution to most component parts of the task. • Some sections of the solution may be inefficiently coded, although basic functionality is mostly successful. • The task is mostly complete, but it may be limited in its scope.	• There is an attempt to program solution to solve all of the task using most of the techniques listed. • The task is clearly broken down into its component parts, with reasons given, and there is a clear correspondence of the design with the final code. • The techniques are used appropriately in all cases giving an efficient, working solution to all parts of the problems. • There may be additional programming techniques used to produce an efficient and elegant solution to the task. • The solution is sufficiently challenging and makes good use of a range of techniques.

Analysis (0-6 Marks)

Section Mark	Supporting Comments

Lower Band (1-2)	Middle Band (3-4)	Upper Band (5-6)
• There is limited analysis, with some comments on what the task involves. • There may be little decomposition of the task into its component parts • There are brief comments on how testing might take place, but with no mention of success criteria.	• There is some analysis indicating what is required for each of the component parts. • The problems have been decomposed into clearly defined component parts. • There is some discussion of how testing will take place. • The link between testing and success criteria is evident. • In the solution to the task, the objectives are clear. • The solution to the task shows awareness of real-world utility value but may be limited in scope.	• There is a detailed analysis of what is required for solving the problems. • There is clear and logical decomposition of larger tasks into component parts. • There is a clear requirements specification which covers all the functionality of the task. • Approaches are justified. • There is detailed discussion of testing and success criteria. • The importance of validation in order to produce a robust program is taken into account. • In the solution to the task, objectives are clear and show awareness of the need for real-world utility and robustness.

	Section Mark	Supporting Comments		
Design (0-8 Marks)				
	Lower Band (1-2)	**Middle Band (3-5)**	**Upper Band (6-8)**	
	• There are basic plans to solve some of the component parts of the task. • There may be a limited outline describing the intended approach to some parts of the task. • Testing is not planned or only briefly mentioned. • The solution may be outlined but not in sufficient detail to produce a workable solution.	• Most component parts of the task are planned. • The user interface is described. • There is a set of basic algorithms outlining a solution to most parts of the problems. • There is some discussion of how testing will take place. • The link between testing and success criteria is evident. • There is some discussion of the variables to be used. • There is awareness of the need for validation. • The solution to the task shows awareness of real-world utility value, but may be limited in scope.	• All the component parts of the task are clearly planned. • There is discussion and planning of the user interface. • There is a full set of detailed algorithms representing a solution to each part of the problem. • The design is complete enough for it to be used as the basis for coding. • There is detailed discussion of testing and success criteria. • There is awareness of why testing should be destructive. • Variables and data structures are identified. • The solution to the task shows consideration about how to build in robustness. • The solution to the task is clearly designed in a modular way.	

	Section Mark	Supporting Comments		
Development (0-8 Marks)				
	Lower Band (1-2)	**Middle Band (3-5)**	**Upper Band (6-8)**	
	• There is limited evidence to show a solution to component parts of the task. • There is some evidence to show that the solution works. • Code is presented with little or no annotation. • Variable names may not reflect their purpose. • The code shows little organisation or structure. • There is a limited record of resources used. • Quality of extended response – The report is presented in an unstructured format. Information may be supported by limited evidence and the relationship to the evidence may not be clear.	• There is evidence to show how the solutions was developed. • There is some evidence of testing during development. • Testing shows that many parts of the solution work. • The code is organised with sensible variable names and with some annotation indicating the purpose of each part of the code. • There is a record of resources used. • Quality of extended response – The report, for the most part, is presented in a structured format. The information presented is, in the most part, relevant and supported by some evidence.	• There is detailed evidence showing development of the solution. • There is detailed evidence of systematic testing and refinement during development to show that all parts work as required. • The code is well organised with meaningful variable names and detailed annotation indicating the function of each section. • There is a detailed record of resources used. • Quality of extended response – The report is presented in a coherent and structured format. The information presented is relevant and substantiated.	

	Section Mark	Supporting Comments

Testing and Evaluation and Conclusions (0-6 Marks)

Lower Band (1-2)	Middle Band (3-4)	Upper Band (5-6)
• There is evidence to show that the system has been tested for basic functionality but the test plan is limited in scope with little structure. • There is limited evidence to show how the result matches the original criteria. • Quality of extended response – The report may be ambiguous or disorganised, with little or no use of specialist terms.	• There is a test plan covering many parts of the problem with some suggested test data. • There is evidence that the system has been tested using this data. • There is some evidence to show how the results of testing have been compared to the original criteria. • There is a brief evaluation of how successful or otherwise the solution is. • Quality of extended response – The report, for the most part, is presented in a structured format with use of some specialist terms.	• The detailed test plan covers all major success criteria for the original problem. • The testing demonstrates how the solution relates to the success criteria. • Unresolved issues are highlighted together with comments on how the issues might be resolved. • Testing is clearly more than just a demonstration of success – it is used destructively to uncover errors. • There is a full evaluation of the final solution against the success criteria. • Quality of extended response – The report is presented in a coherent and structured format, and specialist terms are used accurately and confidently

Analysis: Permitted Support given

Design: Permitted Support given

Total Project Mark (maximum 40)

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).

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   Enter the mark awarded for each Assessment Criterion in the appropriate box.
4   Add together the marks for the Assessment Criteria to give a total out of 40. Enter this total in the relevant box.

Oxford Cambridge and RSA Examinations