**A-level Computing (2510)**

**Unit 4 The Computing Practical Project (COMP4)**

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| Centre number |  | Centre name |
| 64395 |  | Godalming College |
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**Section 1 - The Project**

*To be completed by the candidate and returned to the teacher for approval before the project is started*

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| Project title |  |
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| **Outline description** |

**Section 2 - Project development**

*To be completed by the candidate and teacher.*

The candidate **(C)** and the teacher **(T)** should indicate which items are present in each section by selecting/ticking the appropriate boxes, providing the related page reference

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| **Analysis** | **C** | **T** | **Page** |
| Background to/identification of problem |  |  |  |
| Description of the current system |  |  |  |
| Identification of the prospective user(s) |  |  |  |
| Identification of user needs and acceptable limitations |  |  |  |
| Data source(s) and destination(s) |  |  |  |
| Data volumes |  |  |  |
| Analysis Data Dictionary |  |  |  |
| Data flow diagrams (DFDs) (existing and proposed systems) |  |  |  |
| Entity-relationship (E-R) model (if appropriate), E-R diagrams, entity descriptions |  |  |  |
| Object analysis diagrams - inheritance, aggregation (if appropriate) |  |  |  |
| **Numbered** general and specific objectives of the project |  |  |  |

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| **Analysis (continued)** | **C** | **T** | **Page** |
| Realistic appraisal of the feasibility of potential solutions |  |  |  |
| Justification of chosen solution |  |  |  |
| Evidence of use of appropriate analysis techniques |  |  |  |

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| **Comment** | **Maximum mark** | **Mark awarded** |
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| **Design** | **C** | **T** | **Page** |
| Overall system design |  |  |  |
| Description of modular structure of system |  |  |  |
| Definition of data requirements (Design Data Dictionary) |  |  |  |
| Description of record structure (if appropriate) |  |  |  |
| Validation required |  |  |  |
| File organisation and processing (if appropriate) or database design including normalised relations (if appropriate) |  |  |  |
| Sample of planned SQL queries (if appropriate) |  |  |  |
| Identification of storage media |  |  |  |
| Identification of suitable algorithms for data transformation, pseudocode of these algorithms |  |  |  |
| Class definitions (diagrams) and details of object behaviours and methods (if appropriate) |  |  |  |
| User interface design (HCI) rationale |  |  |  |
| UI sample of planned data capture and entry designs |  |  |  |
| UI sample of planned valid output designs |  |  |  |
| Description of measures planned for security and integrity of data |  |  |  |
| Description of measures planned for system security |  |  |  |
| Overall test strategy |  |  |  |

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| **Technical Solution** |
| Evidence for this section may come from copies of code listings in the appendix and/or details of software tailoring included in the systems maintenance section. It is not expected that candidates will supply multiple copies of listings, systems or algorithm design documentation. |

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| **System testing** | **C** | **T** | **Page** |
| Design of test plan |  |  |  |
| A minimal set of test data |  |  |  |
| Expected results for typical, erroneous and extreme (boundary) data where appropriate |  |  |  |
| Annotated hard copy of samples of actual test runs |  |  |  |
| Cross-referenced to the test plan |  |  |  |

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| **System maintenance** | **C** | **T** | **Page** |
| System overview |  |  |  |
| A sample of detailed algorithm design |  |  |  |
| Procedure and variable lists/descriptions for programs OR list of package items developed |  |  |  |
| Annotated listings of program code/macro code and tailoring |  |  |  |

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| **User manual, including Quality of Written Communication** | **C** | **T** | **Page** |
| A brief introduction and installation instructions |  |  |  |
| Detailed description of the use of the full system |  |  |  |
| Samples of actual screen displays in situ |  |  |  |
| Samples of error messages and error recovery procedures |  |  |  |
| Quality of Written Communication |  |  |  |

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| **Appraisal** | **C** | **T** | **Page** |
| Comparison of project performance against numbered general and specific objectives |  |  |  |
| User feedback authenticated by assessor |  |  |  |
| Analysis of user feedback |  |  |  |
| Possible extensions |  |  |  |

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| **Comment** | **Maximum mark** | **Mark awarded** |
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*This form should be attached to the candidate’s work and retained at the centre or sent to the moderator as required.*