



**Unit:
Analysis, Design and Implementation
20 Credits**

**Assignment title:
Peer Review**

Sample Marking Scheme

Markers are advised that, unless a task specifies that an answer be provided in a particular form, then an answer that is correct (factually or in practical terms) **must** be given the available marks. If there is doubt as to the correctness of an answer, the relevant NCC Education materials should be the first authority.

This marking scheme has been prepared as a **guide only** to markers and there will frequently be many alternative responses which will provide a valid answer.

Each candidate's script must be fully annotated with the marker's comments (where applicable) and the marks allocated for each part of the tasks.

Throughout the marking, please credit any valid alternative point.

Where markers award half marks in any part of a task, they should ensure that the total mark recorded for the task is rounded up to a whole mark.

Marker's comments:

Moderator's comments:

Mark:

Moderated mark:

Final mark:

Penalties applied for academic malpractice:

Task	Guide	Maximum Marks
1	<p>Candidate Class List and Diagrams</p> <p><i>The candidate class list should incorporate justifications and discussion as to why each class was selected for inclusion, and how its relationship to other classes was derived. The class diagram should show attributes, operations, scope and relationship of classes to each other.</i></p> <p>Candidate Class List <i>There should be at least the following classes: User (or other suitable name), Work (or other suitable name), Comment(or other suitable name) (2 marks for each class with justification/ relationships). 1 additional mark is available for suitable aggregation classes.</i></p> <p>Additional Classes <i>It is entirely possible to complete the application using only the classes indicated above, but an extra five marks should be made available for classes that offer better class structure. For example, creating sub-classes of Work or implementing specialisms as individual classes. Students can also profitably make use of abstract classes to implement functionality. (2 marks for each suitable additional class, up to a maximum of 6 marks. Do not award more than a maximum of 2 marks for use of abstract classes.)</i></p> <p>Class Diagram <i>The class diagram should include attributes for all classes (2 marks), operations for all classes (2 marks), and implement the correct relationships between classes (2 marks) and their multiplicity (1 mark).</i></p>	<p>7</p> <p>6</p> <p>7</p> <hr/> <p>20</p>
2	<p>Activity Diagram</p> <p>Functionality <i>The activity diagram should incorporate the classes involved in the system assigning peer reviewers for a piece of work. Here, neatness of the flow of logic is important.</i></p> <p><i>The activity diagram should show the following things (4 marks each):</i></p> <ul style="list-style-type: none"> • Identify suitable reviewers by specialism 	<p>16</p>

Task	Guide	Maximum Marks
	<ul style="list-style-type: none"> • Identify unsuitable reviewers by peer review score • Selecting reviewers on the basis of load balancing • Assigning reviewers to specific pieces of work <p>Class ownership The activity diagram should properly reflect which classes have the responsibility for each of the elements of functionality, which allows for an additional 4 marks.</p>	<p style="text-align: right;">4</p> <hr/> <p style="text-align: right;">20</p>
3	<p>Use Case Diagram</p> <p><i>The use case diagram should incorporate each of the user activities indicated in the brief (1 mark for each, an additional mark for showing the associations). Additional 1 mark available for other valid identified use-case, up to a maximum of 8 marks.</i></p>	<p style="text-align: right;">8</p> <hr/> <p style="text-align: right;">8</p>
4	<p>Code Architecture</p> <p><i>The implementation side is broken down into two parts. The first covers the implementation of the code architecture itself – this is the set of commands and the relationship between the various classes. Students should be given marks for handling the requirements via inheritance and polymorphism (5 marks), handling user input (5 marks) and handling output (5 marks)</i></p>	<p style="text-align: right;">15</p> <hr/> <p style="text-align: right;">15</p>
5	<p>System Implementation</p> <p><i>The following functionality is required of the application:</i></p> <ul style="list-style-type: none"> • <i>Allows for new accounts to be created</i> • <i>Allows for users to select their specialities</i> • <i>Allows for users to add new work to be peer reviewed</i> • <i>Assigns appropriate peer reviewers to work that is added</i> • <i>Allows users to add comment to work to which they have been assigned</i> • <i>Allows users to rate the comments submitted on the work they have added</i> • <i>Permits users to browse through all their contributions to the system</i> 	<p style="text-align: right;">2</p> <p style="text-align: right;">2</p> <p style="text-align: right;">2</p> <p style="text-align: right;">3</p> <p style="text-align: right;">2</p> <p style="text-align: right;">3</p> <p style="text-align: right;">3</p>

Task	Guide	Maximum Marks									
	<ul style="list-style-type: none"> • Avoid assigning badly reviewed peer reviewers to work for which they are not qualified to comment. • Implement the GUI that permits the editing and reading of all contributions. • Allow users to search through comments by key word. 	<p>2</p> <p>3</p> <p>3</p> <hr/> <p>25</p>									
6	<table border="1"> <thead> <tr> <th>0-3</th> <th>4-6</th> <th>7-10</th> </tr> </thead> <tbody> <tr> <td><i>Provides a brief description of the learning that occurred and a somewhat superficial analysis of its importance.</i></td> <td><i>Provides a description of the learning that occurred supported by some analysis which would benefit from more substance.</i></td> <td><i>Provides an in-depth description of the learning that occurred and a developed analysis of its importance.</i></td> </tr> <tr> <td><i>Produces a simple action plan that gives limited or vague detail on the activities that need to take place in order to improve learning or practice.</i></td> <td><i>Produces a sensible action-orientated action plan that provides some detail on activities that need to take place in order to improve learning or practice.</i></td> <td><i>Produces a comprehensive, action-orientated action plan that details clear activities that need to take place in order to improve learning or practice.</i></td> </tr> </tbody> </table> <p style="text-align: right;">10</p>		0-3	4-6	7-10	<i>Provides a brief description of the learning that occurred and a somewhat superficial analysis of its importance.</i>	<i>Provides a description of the learning that occurred supported by some analysis which would benefit from more substance.</i>	<i>Provides an in-depth description of the learning that occurred and a developed analysis of its importance.</i>	<i>Produces a simple action plan that gives limited or vague detail on the activities that need to take place in order to improve learning or practice.</i>	<i>Produces a sensible action-orientated action plan that provides some detail on activities that need to take place in order to improve learning or practice.</i>	<i>Produces a comprehensive, action-orientated action plan that details clear activities that need to take place in order to improve learning or practice.</i>
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Learning Outcomes matrix

Task	Learning Outcomes assessed	Marker can differentiate between varying levels of achievement
1	1, 2	Yes
2	1, 2, 3, 5	Yes
3	1, 2, 3, 5	Yes
4	2, 4, 6, 7	Yes
5	2, 4, 6, 7	Yes
6	1, 2, 3, 4, 5, 6, 7	Yes

Grade descriptors

Learning Outcome	Pass	Merit	Distinction
Understand the seamless transition from OO Analysis to OO Design.	Demonstrate adequate level of understanding	Demonstrate robust level of understanding	Demonstrate highly comprehensive level of understanding
Understand how to convert OO analysis and design models to code	Demonstrate ability to perform the task	Demonstrate ability to perform the task consistently well	Demonstrate ability to perform the task to the highest standard
Understand the quality attributes associated with an OO development	Demonstrate adequate understanding of quality attributes	Demonstrate robust understanding of quality attributes	Demonstrate highly comprehensive understanding of quality attributes
Understand the concept of maintenance within an OO development environment	Demonstrate adequate level of understanding	Demonstrate robust level of understanding	Demonstrate highly comprehensive level of understanding
Be able to produce OO analysis and design models using a case tool	Demonstrate ability to perform the task	Demonstrate ability to perform the task consistently well	Demonstrate ability to perform the task to the highest standard
Be able to convert OO analysis and design models to code using an appropriate IDE	Demonstrate ability to perform the task	Demonstrate ability to perform the task consistently well	Demonstrate ability to perform the task to the highest standard
Be able to refactor an OO programme to improve quality	Demonstrate ability to perform the task	Demonstrate ability to perform the task consistently well	Demonstrate ability to perform the task to the highest standard