**Short Answer Questions Guidelines**

* Download this assessment to your local computer
* Upload your answers to your repository at the end of each period (Today & Tomorrow)
* Answer the questions using MS Word
* For each question clearly identify each of the points you are answering
* Provide complete sentences for each point with clear details and justification
* Clearly format included Java code samples as required for some questions
* Answer any 8 out of the 9 questions from the list below
* Only the first 8 questions will be marked
* Each question is worth 5 marks
* The total for this summative is 40 marks

**Short Answer Questions**

1. Describe a situation in class where one-dimensional and two-dimensional arrays were used to store and manage data. Structure your answer as follows.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain specifically how the work or activity is related to the topic
   3. Provide or explain specific examples of your work. Include sample Java code.
   4. For additional marks, provide sample Java code to add, change, and delete elements of the array.
2. Describe a situation in class where code was developed to read from and write to and external file. Structure your answer as follows.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain specifically how the work or activity is related to the topic
   3. Provide or explain specific examples of your work. Include sample Java code.
3. Describe a situation in class where code was developed to implement classes and objects. Structure your answer as follows.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain how classes and objects are related but are also different
   3. Provide an example of a class that includes a constructor and at least one method. Include sample Java code.
   4. Explain, using your example class, how an object can be created and used. Include sample Java code.
4. Describe a situation in class where code was developed to implement private and public constants, variables and methods in a Java class. Structure your answer as follows.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain the difference between making a variable “public” or “private”.
   3. Provide sample Java code for public and private constants, variables and methods.
5. Describe a situation in class where code was developed to implement a standard mathematical algorithm or to implement a specification provided by your teacher.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain specifically how the work or activity is related to the topic
   3. Provide or explain specific examples of your work. Include sample Java code.
6. Describe a situation in class where code was developed to implement a graphical user interfaces (GUI). Structure your answer as follows.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain specifically how the work or activity is related to the topic
   3. Provide or explain specific examples of the widgets used to implement the GUI. Include sample Java code.
   4. For additional marks, provide sample Java code to add, change, and delete elements of the widgets.
7. Explain the importance of designing reusable and partitioned code in computer programs. Structure your answer as follows.
   1. Explain the benefits of separating code into well-defined classes and objects
   2. Explain the importance of having well defined interfaces (e.g. public methods)
   3. Describe a situation in class where you implemented code based on a specification that was provided.
   4. Describe a situation in class where you documented the interface and specification for code you developed.
8. Describe a situation in class where you participated in a multi-student project involving Java code. Structure your answer as follows.
   1. Summarize the work or activity you did that links to the topic.
   2. Explain the software development plan that was created for the project
   3. Explain how students communicated with each other regarding the status of their individual assigned tasks.
   4. Explain how the code developed by different students was merged into one project
   5. Explain how industry-standard programming tools (e.g. Eclipse, GitHub) are used to support multi-student software projects.
9. Describe a situation in class where you worked independently to develop Java code. Structure your answer as follows.
   1. Explain how you used help functions and reference documentation to resolve syntax issues (coding issues) while programming. Provide specific examples.
   2. Explain how you used reference documentation to find sample code that you could use and modify implement parts of your program. Provide specific examples.
   3. Explain how you used the Eclipse environment to debug your program