| | Criteria | Sub-criteria | 1 | 2 | 3 | 4-5 | 6 |
|---|--|---|--|--|---|--|---|
| 1 | Ability to demonstrate design solution | Construct correct pseudocode | Unable to construct | Able to construct but with wrong logic | Able to construct correctly but with missing elements | Able to construct correctly and use proper elements | Able to construct correctly, use proper elements and documentation |
| 2 | Ability to analyse problem and identify requirements | Identify correct input / output | Unable to identify any input and output | Able to identify only one input or output | Able to identify correctly some input and output | Able to identify correctly all input and output | Able to identify correctly all input and output and provide alternative |
| 3 | Ability to apply required data type or data structure | Appropriate choice of variable names or data structure | Unable to identify required data type or data structure | Able to identify required data type or data structure but does not apply correctly | Able to apply required data type or data structure but does not produce correct results | Able to apply required data type or data structure and produce partially correct results | Able to apply required data type or data structure and produce correct results |
| 4 | Ability to apply required flow control structure | Correct choice of sequential, selection or repetition control flow structure | Unable to identify required control structure | Able to identify required control but does not apply correctly | Able to apply required control structure but does not produce correct results | Able to apply required control structure and produce partially correct results | Able to apply required control structure and produce correct results |
| 5 | Ability to modularise | Construct modularised programs | Unable to modularise | Able to use one or a few modularised elements, but not to write a modularised program | Able to write modularised programs, but with problems in the structure and/or functioning | Able to write modularised programs | Able to write fully modularised programs, using proper documentation |
| 6 | Ability to run/debug | Free from syntax, logic, and runtime errors | Unable to run program | Able to run program but have logic error | Able to run program correctly without any logic error | Able to run program correctly without any logic error and display inappropriate output | Able to run program correctly without any logic error and display appropriate output |
| 7 | Ability to produce readable program | Comment / Description | No documentation | Documentation is simple comment in code | Documentation is simple comments embedded in code and header describing input and ouput | Documentation is simple comments and header that is useful in understanding the code. Modularised elements display documentation | Documentation is well-written and clearly explains what each part/element of the code is accomplishing. The header contains info about the developer, the code release and updates, licence, etc. |
| 8 | | Indentation / Naming Convention | Unable to organise the code | The code is poorly organised and very difficult to read | The code is readable only by a person who already knows its purpose | The code is fairly easy to read | The code is extremely well organized and easy to follow |
| 9 | Ability to complete exercise | Program is complete (input/action(s)/output) | Unable to collect the output | The output is collected but it is not used | The output is collected and used, but output is not generated | The output is collected and used, but the program does not display correct results | The output is collected and used, and correct output is generated |