***Procedural Programming 1: Marking Rubric***

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|  | ***Criteria & Outcomes******Total Marks: 10*** |
| ***Not******Included******0*** | ***Partially******Met******1*** | ***Fully******Met******2*** | **Procedural Elements Research Assignment: 4 Marks** |
|  |  |  | **Knowledge: demonstrate an understanding of modular programming**1.1 describe the advantages of programming with modules or subroutines including:1.1.1 reducing the duplication of code in a program1.1.2 enabling the reuse of code in more than one program1.1.3 decomposing complex problems into simpler pieces to improve maintainability andextendibility1.1.4 improving the readability of a program1.1.5 hiding or protecting the program data1.2 select a programming environment and describe how it supports procedural programmingincluding:1.2.1 the type of subprograms supported; e.g., procedures, functions, methods1.2.2 the level or type of modularity provided1.2.3 the level of protection provided from unwanted side-effects |
|  |  |  | **Life Roles: identify possible life roles related to the skills and content of this cluster**6.1 recognize and then analyze the opportunities and barriers in the immediate environment6.2 identify potential resources to minimize barriers and maximize opportunities |
| ***Not******Included******0*** | ***Partially******Met******1*** | ***Fully******Met******2*** | **Number Guesser Assignment: 6 Marks** |
|  |  |  | **Programming:** **demonstrate basic procedural programming skills by writing algorithms employing a modular****approach to solve problems**2.1 analyze a data processing problem and use a top-down design approach to decompose it intodiscreet input, processing and output modules2.2 analyze and refine modules into submodules that are a manageable size for each process; e.g.,input submodules, processing submodules and output submodules2.3 describe and represent, using pseudocode or an appropriate diagramming approach, therelationship among the modules2.4 analyze and rewrite algorithms for each module identifying the pre- and post-conditions andrequired program control of flow mechanisms.2.5 analyze and evaluate algorithms for each developing module with appropriate data and revise, asrequired |
|  |  |  | **Modify/Debug: compare the results of the program with the intent of the algorithm and modify, as required**4.1 use appropriate error trapping mechanisms built into the programming environment, as well asprogrammer-directed error-trapping techniques, to eliminate logic errors and debug the program4.2 compare the congruency between the outcomes of the debugged program and the original intentof the algorithm and modify, as required |
|  |  |  | **Basic Competencies: demonstrate basic competencies**5.1 demonstrate fundamental skills to:5.1.1 communicate5.1.2 manage information5.1.3 use numbers5.1.4 think and solve problems5.2 demonstrate personal management skills to:5.2.1 demonstrate positive attitudes and behaviours5.2.2 be responsible5.2.3 be adaptable5.2.4 learn continuously5.2.5 work safely5.3 demonstrate teamwork skills to:5.3.1 work with others5.3.2 participate in projects and tasks |