**SKM3002 Mathematics for Multimedia Computing**

10marks

**Programming Exercise 1**

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| Type : | Individual | |
| Learning Outcome: | CPS3: | Apply computing skills in analyzing, modelling, designing, developing, programming and evaluating efficient computing solutions. |
| Description: | Use any programming tools to write code for these problems: -   1. Given and , find the value . 2. Given , and , find the value of . 3. Ashley bought slices of vanilla-flavored cake and slices of chocolate-flavored cake. If the cost of one slice of vanilla-flavored cake and a slice of chocolate-flavored cake is RM5 and RM6, respectively, express the amount to be paid by Ashley in terms of and . State the result when and . 4. In a market, Miss Sally bought kg of chicken at RM 8 per kg and kg of beef at RM22 per kg. Show the result when and . 5. On a particular day, a machine produced 1750 marbles, 18 of which were substandard. After removing all the substandard marbles, the remaining marbles are packed into containers, each with a capacity of 40 marbles. Calculate the minimum number of containers required to pack the remaining marbles. | |
| Submission: | A report (.pdf) submitted through PutraBlast containing: -  • information of which programming language / tool was used,  • the source code complete with comments,  • screenshot of the code output. | |
| Deadline: | **30th April 2024 before 11.59pm** | |

**Rubric for Programming Exercise 1**

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| Criteria | Full Marks |  | Marks |
| Correctness of answers | 5 | 1 Mark for each correct answer |  |
| Programming skill | 2 | 2 – Programme executes perfectly, and coding is well structured.  1 – Code can be executed but data structure is not efficient.  0 – Code cannot be executed. Or no submission. |  |
| Neatness of coding | 1 | 1 – Coding is neatly done with complete comments (explanations) for all functions.  0 – Coding is poorly done with no comments (explanations) for each function. Or no submission. |  |
| Output | 2 | 2 – Output from the programme is neatly presented. Student shows **extra effort in programming codes** while completing the exercise. Extra effort may include formatting the output for appealing presentation or including user interface for user inputs.  1 – Output from the programme is presented and fulfils the minimum requirements of the exercise.  0 – Programme cannot be executed. Or no submission. |  |