THE OPEN UNIVERSITY OF SRI LANKA

B.Sc/B.Ed Degree Programme

Applied Mathematics – Level 05

ADU 5320 – Introduction to MATLAB software

No Book Test (NBT) – 2021/2022

DURATION: ONE (01)–HOUR

Date: 06.02.2022.   **Time: 9.00 a.m.- 10.00 a.m.**

ANSWER **ALL** QUESTIONS.

1. a) **Using for loop** write a MATLAB program to calculate the area of five circles in five iterations. Allow the user to enter the radius of each circle in each iteration as a user-input. The area of each circle should be displayed as the output of each iteration.

   b) Modify the program in part a), so that it will only provide the output for circles with an area less than 100.

   c) Modify the program in part a), to get the input from the user into an array and to display the output in an array.

2. a) Write a user defined MATLAB function that has two scalar input arguments and returns the product of its input arguments as an output argument.

   b) Write a MATLAB program to display the smallest non negative integer k such that $2^k \geq 8$.

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