



**SCHOOL OF PRE-UNIVERSITY STUDIES
FOUNDATION PROGRAMMES**

**WRITTEN TEST 1 (SET 6)
AUGUST 2022 SEMESTER**

MODULE NAME : INTRODUCTION TO ALGORITHM

MODULE CODE : ITS30705

TIME : 1 HOUR

This paper consists of FOUR (4) printed pages.

Student Name

Student ID

Tutorial Group

Instruction to Candidates:

1. Answer all questions in the paper and the answers are to be written in either black or dark blue pen.
2. This is a closed book examination, no notes are permitted.
3. Non-programmable electronic calculators may be used.
4. Severe disciplinary action will be taken against those caught violating examination rules.

**DO NOT TURN THIS PAGE UNTIL INSTRUCTED TO DO SO.
TO BE RETURNED AT THE END OF THE TEST.**

Question 1

Create a program to calculate the volume of a cube. The program accepts a length of the cube. Pass the length to a function that calculates the volume of a cube and return the cube value so that the value can be displayed in the in the program. Figure below shows the formula of to calculate the volume of a cube. Complete:

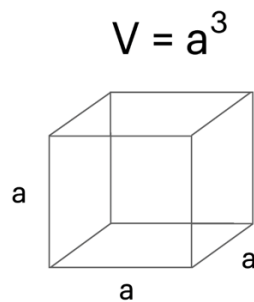


Figure 1: Area and volume of cylinder

Given:

```
Enter the length of a cube >> 6
```

Expected result:

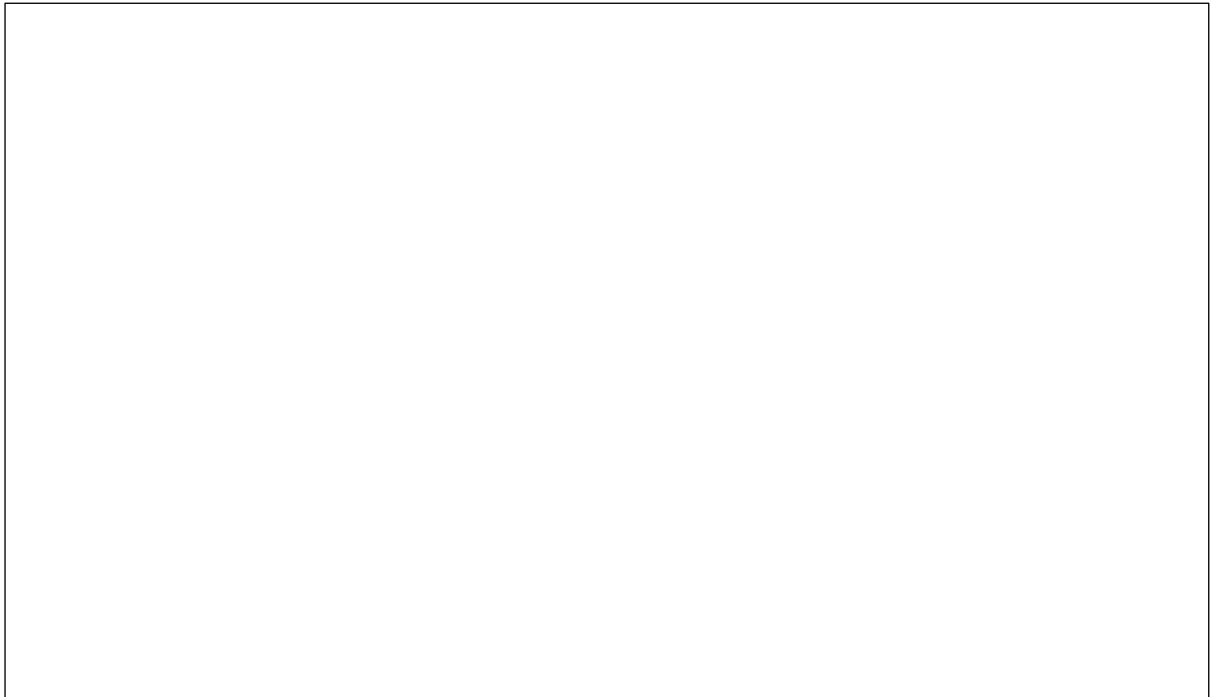
```
The volume of the cube is 27
```

a) The pseudocode of the program

(5 marks)

b) The flowchart of the program

(5 marks)



c) The code of the program

(5 marks)



Question 2

Write a program that check whether the student is allowed to take the exam or not based on their attendance. The program accepts the number of classes held and the number of classes the students has attend. The student is not allowed to take the exam if the attendance is less than 75%. (5 marks)

--- END OF TEST PAPER ---