**Unit 12.3 : Program Maintenance and Testing**

Weekly\_Test (6 Feb 2023 to 12 Feb 2023)

1. Brief explain 3 types of testing that can be carried out during program testing

[5 Marks].

1.Normal test :data that is to be accepted by a program and is used to show that the program is working as expected

2.Abnormal test:data that should be rejected by a program as it is unsuitable or could cause problems.

3.Extreme test:data that is on the limit of that accepted by a program.

2) List and briefly describe 3 methods of program maintenance

[5 marks]

**1.Corrective maintenance: is used to correct any errors that**

**appear during use**

**2.Perfective maintenance:is used to improve the performance**

**of a program during it use**

**3.Adaptive maintenance:is used to alter a program so it can perform**

**any new tacks required by the customer.**

1. From the structure chart that you have drawn in Q1, write a Pseudo Code of a function to calculate the volume of a sphere, and also write another Pseudo code of a function to calculate the surface area of a sphere. You would also need to declare the variable and constants used in your Pseudo Code.

[4 Marks]

DECLARE radius :REAL

CONSTANT pi : 3.14

INPUT (‘Please enter the radius of the sphere’)

OUTPUT radius

WHILE radius > 0 DO

OUTPUT (‘Please enter a positive number’ )

INPUT radius

ENDWHILE

CALCULATE surface area = pi \* radius \* radius

CALCULATE volume = ¾ \* pi \* radius \* radius \* radius

OUTPUT ‘surface area is’,surface area

OUTPUT ‘volume is’, volume