**GOVERNMENT POLYTECHNIC, AMRAVATI**

**(An Autonomous Institute of Government of Maharashtra)**

**NBA Accredited Institute**

**Certificate**



**Name of Department:** Computer Science and Engineering.

This is to certify that Mr. Ayush Shashikant Bulbule Identity Code 19CM007 has completed the practical work of the course **CM5461 Programming with Python** during the Academic year 2021-22S.

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| --- | --- | --- |
|  | Signature of the Teacher |  |
| Date: | who taught the examinee | Head of Department |

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| --- | --- | --- | --- | --- |
| **S.No** | **Name of Experiment** | **Date** | **Page** | **Remarks** |
| 1 | Identify different hardware devices and peripherals by its type and verify its  specifications . | 29-04-2020 | 3 |  |
| 2 | a. Identify hardware components and peripherals on motherboard.  b. Troubleshoot common problems of motherboard. | 13-05-2020 | 6 |  |
| 3 | Configure BIOS settings | 12-05-2020 | 8 |  |
| 4 | Partition and manage hard disk: format hard drives with different file systems. (PartI ) | 18-05-2020 | 17 |  |
| 5 | Partition and manage hard disk, format hard drives with different file systems. (PartII) | 17-05-2020 | 27 |  |
| 6 | Install Operating System – Windows family (such as Windows 7/ Windows 10,Windows server 12) | 22-05-2020 | 30 |  |
| 7 | Install Operating System –Unix family (such as Linux/Ubuntu/Centos) | 25-05-2020 | 32 |  |
| 8 | Troubleshoot Hard Disk Dive problems. | 23-05-2020 | 36 |  |
| 9 | To write an assembly language program for finding larger of two  numbers using procedure | 05-06-2020 | 42 |  |
| 10 | Perform addition of two numbers by using macro | 11-06-2020 | 45 |  |
| 11 | Write an assembly language program for flashing of LED’s at PORT A  of 8255. | 15-06-2020 | 48 |  |
| 12 | Interface 8254 times with 8086 as add addressed device & generate a square wave at its output. | 20-06-2020 | 53 |  |

**Practical No. 1**

**Aim:** Develop minimum 2 programs using Arithmetic Operators, exhibiting data type conversion.

**Requirements:**

**Practical Outcomes:** Develop Python program using operators: Arithmetic Operators, Logical Operators, Bitwise Operators

**Theory:**

Operators are used to perform operations on values and variables. Operators can manipulate individual items and returns a result. The data items are referred as operands or arguments. Operators are either represented by keywords or special characters. Here are the types of operators supported by Python:

* Arithmetic Operators
* Assignment Operators
* Relational or Comparison Operators
* Logical Operators
* Bitwise Operators
* Identity Operators
* Membership Operators

Students will be able to use various operators to check the condition and get appropriate result by performing different operation with the help of supported operators.