



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – Dip.RA-2023

Course Name – Programming for IOT

Course Code - ECOE601B

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Identify the official website to download Python.
 - a) www.python.org
 - b) www.python.com
 - c) www.downloadpython.com
 - d) www.python-install.org
- (ii) Select the command to check the installed Python version.
 - a) `python --check`
 - b) `python -V`
 - c) `python --show-version`
 - d) `python -ver`
- (iii) Choose the Python command to run a script named script.py.
 - a) `python script.py`
 - b) `run script.py`
 - c) `execute script.py`
 - d) `python -run script.py`
- (iv) Select the function used to take user input in Python.
 - a) `get()`
 - b) `read()`
 - c) `input()`
 - d) `scan()`
- (v) Indicate which data type is returned by the `input()` function.
 - a) int
 - b) str
 - c) float
 - d) bool
- (vi) Identify the correct function to find the length of a string.
 - a) `count()`
 - b) `length()`
 - c) `len()`
 - d) `size()`
- (vii) Select the correct keyword for adding multiple conditions in an if-else statement.
 - a) `elseif`
 - b) `elif`
 - c) `else if`
 - d) `next if`
- (viii) Choose the logical operator that returns True if at least one condition is True.
 - a) `and`
 - b) `or`
 - c) `not`
 - d) `nor`
- (ix) Identify the correct syntax for a nested if statement.

- a) if condition1: if condition2: b) if condition1: \n if condition2:
 c) if condition1, if condition2: d) if (condition1 && condition2):
- (x) Choose the keyword used to define a class in Python.
 a) define b) class
 c) function d) object
- (xi) Indicate the what a class destructor does.
 a) It is no longer needed b) Initializes an object
 c) Modifies an object d) None of the above
- (xii) Select the correct term for a class that is inherited by another class.
 a) Superclass b) Subclass
 c) Derived class d) Parent class
- (xiii) Choose the command used to list files in a directory.
 a) ls b) dir
 c) list d) show
- (xiv) Indicate the command used to copy files in Linux.
 a) copy b) mv
 c) cp d) duplicate
- (xv) Identify the file system used by most Linux distributions.
 a) NTFS b) ext4
 c) FAT32 d) HFS+

Library
Brainware University
 398, Ramkrishnapur Road, Barasat
 Kolkata, West Bengal-700125

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Indicate when a destructor (`__del__` method) is called in Python. (3)
3. Choose the correct way to define a function with multiple parameters. (3)
4. Explain the function of General Purpose Input/Output (GPIO) pins in Raspberry Pi. (3)
5. Identify the difference between ``='`` and ``=='`` in Python. (3)
6. Explain the structure of the Linux file system. (3)

OR

- Evaluate the difference between nano, vim, and gedit text editors in Linux. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain list slicing in Python with examples. (5)
8. Explain the process for Windows and Linux. (5)
9. Discuss the are Linux processes. How can you manage them? (5)
10. Discuss the role of the operating system on a Raspberry Pi. (5)
11. Explain the Tkinter be used to control GPIO pins in Raspberry Pi. (5)
12. Explain how a simple internet-based camera access system works. (5)

OR

- Focus the security considerations while sending emails programmatically. (5)
