

22U158S

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Name:

Reg. No:

FIRST SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

(Information Technology)

CC18U SDC1 PP02 – PYTHON PROGRAMMING, BASIC ELECTRONICS,

INTRODUCTION TO IOT

(2018 Admission – Supplementary/Improvement)

Time: Three Hours

Maximum: 80 Marks

PART A

Answer *all* questions. Each question carries 1 mark.

1. The symbols used in an assembly language are _____
2. The computer accepts input data from user via an _____
3. The _____ memory stores data and instructions permanently.
4. A file that contains a collection of related functions and classes is a _____
5. The input() function accepts every value as a _____
6. _____ ensures the reliable transmission of packets in-order.
7. A _____ is a program in a state of execution.
8. A group of 8 bits form a _____
9. A _____ permits substantial current flow when forward biased and blocks current when reverse-biased.
10. The third generation computers used _____ for circuitry.

(10 × 1 = 10 Marks)

PART B

Answer any *eight* questions. Each question carries 2 marks.

11. Write a short note on Hexadecimal number system.
12. Define flowchart.
13. Differentiate Function and Method.
14. What is the role of things and Internet in IoT?
15. Differentiate Local and Global variables.
16. Write the syntax for if...elif...else conditionals
17. Define *pn*-junction.
18. What are registers?
19. Distinguish Self-Adapting and Self-Configuring features of IoT
20. What is an operating system?
21. Define memory hierarchy?

22. What is full adder?

(8 × 2 = 16 Marks)

PART C

Answer any *six* questions. Each question carries 4 marks.

23. What is ROM? Explain different types of ROM.

24. Briefly explain the components of CPU.

25. Describe in detail two communication APIs in IoT.

26. Explain operations on string.

27. Explain full wave rectification.

28. Define Lists in Python. What are the different operations performed on lists?

29. Explain control statements in Python.

30. What is recursive function? Write a Python program to calculate factorial values using recursion.

31. Explain different communication models in IoT.

(6 × 4 = 24 Marks)

PART D

Answer any *two* questions. Each question carries 15 marks.

32. What are Logic gates? Explain the logic gates with circuit diagram.

33. What are the secondary storage devices? Explain the different types of secondary storage devices.

34. (a) How Tuples are created in Python? What are the basic operations performed on tuples?

(b) Explain Opening and closing of files in Python with example.

35. Explain in detail the applications of IOT.

(2 × 15 = 30 Marks)
