



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2025
VI SEMESTER

Class : III UG
Major : Computer Applications

Time: 2 hours
Maximum Marks: 60

21BCAC28 IoT Design and Applications

Course Outcomes:

1. Identify the components of IoT.
2. Comprehend the schemas for real time applications in IoT.
3. Analyze the building blocks of internet of things and characteristics.
4. Gain programming knowledge in Raspberry Pi with Python.
5. Understand different IoT based real time applications.

Part-A

6x1=6

Choose the correct answer

1. Which of the following is a bi-directional, fully duplex communication model that uses a persistent connection between the client and server. CO1K2
a. Request-response b. Publish-subscribe c. Push-pull d. Exclusive pair
2. Which of the following is used to capture data from the physical world in IoT devices? CO1K1
a. Sensors b. Perceiver c. Microprocessors d. Microcontrollers
3. Which of the following layers provides end-to-end communication in IoT? CO2K3
a. Logical layer b. Data link layer c. Transport layer d. Session layer
4. A function in Python is a block of code that begins with the keyword _____ followed by the function name and parentheses? CO2K3
a. define b. def c. function d. df
5. Raspberry Pi is based on _____ processor. CO3K1
a. RAM b. MAR c. AR d. ARM
6. Which of the following has the ability to route data approaching from the WSN network to the internet and send data coming from the internet to the WSN network. CO3K2
a. Router b. Internet gateway c. hub d. switch

Part- B

3x6=18

Answer ALL Questions

7. a. Write a note on IoT protocols. CO1K1
(or)
7. b. Write short notes on IoT, its characteristics and benefits.. CO1K2
8. a. Write in brief the importance of IoT in daily life with 6 examples? CO2K2
(or)
8. b. Discuss on Python packages for IoT. CO2K1
9. a. With neat diagram explain basic building blocks of an IoT device. CO3K1
(or)
9. b. Describe IoT architecture with diagram. CO3K1

Part-C

3 x12=36

Answer ALL questions

10. a. Explain IoT enabling technologies. CO1K2
(or)
10. b. Explain IoT levels and deployment templates (any 3). CO1K1
11. a. Explain about IoT design methodology. CO3K1
(or)
11. b. Discuss on IoT weather monitoring system case study. CO3K1
12. a. Describe the characteristics, benefits of Python, motivation for using Python in IoT. CO3K1
(or)
12. b. Discuss on Raspberry Pi – About the board, Linux on Raspberry Pi and interfaces. CO4K1

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Staff in-charge: Dr. V. Kumutha