



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 (now MoE)
Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC
Colombatore - 641 043, Tamil Nadu, India
Continuous Internal Assessment II – April-2025
Semester VI

Class : III UG
Major : Computer Science

Time : 2 Hours
Max. Marks: 60

21BCSC29 -Introduction to IoT

Course Outcomes:

1. Understand the basic ideas of IoT
2. Learn the functional design of the IoT based devices
3. Design and implement an IoT device for a given problem domain
4. Understand the areas in which IoTs can be designed
5. Master the basics of IoT design methodologies

Part A

6 x 1 = 6

Answer ALL questions

Choose the Correct Answer

1. _____ is a primary concern in IoT privacy and security solutions . CO3K1
a) Data encryption b) User authentication c) Device interoperability d) Power efficiency
2. Which IoT design methodology phase involves creating a representation of the system's structure and behavior? CO3K1
a) Process b) Model c) Service d) Requirement
3. What is the Operating System used in Raspberry Pi? CO4K1
a) Windows 10 b) macOS c) Raspbian d) Ubuntu
4. Which type of memory is used by Raspberry Pi for storage? CO4K2
a) RAM b) ROM c) Flash d) Cache
5. Which Intrusion detection technique identifies threat based on known attack signature? CO5K2
a) Anomaly-based detection b) Signature based detection
c) Heuristic-based Detection d) Hybrid detection
6. Which is not an IoT platform? CO5K2
a) Xiaomi Cloud b) GoogleCloud c) Myntra d) AWS(Amazon Web Services)

Part B

3 x 6 = 18

Answer ALL questions

Each answer should not exceed 400 words or two pages

7. a. Explain the Functional View Specification in IoT Design Methodology. CO3K2
(or)
7. b. Describe in detail about Application Development in IoT Design Methodology. CO3K3
8. a. Discuss the Programming Raspberry Pi with Python. CO4K2
(or)
8. b. Present the applications of IoT. CO4K3
9. a. Discuss the various types of sensors used in Home Intrusion Detection System. CO5K2
(or)
9. b. Discuss how IoT Printers improve Productivity in Workplaces. CO5K2

Part C

3 x 12 = 36

Answer ALL questions

Each answer should not exceed 800 words or four pages

10. a. Explain the IoT level specification in IoT Design Methodology. CO3K2
(or)
10. b. Explain the IoT Design Methodology with a case study. CO3K2
11. a. Explain Raspberry Pi and its interfaces with a neat diagram. CO4K2
(or)
11. b. Write note on CO4K2
i) PCduino ii) Beagle Bone Black iii) Cubie board
12. a. Describe the Building Blocks of IoT with a diagram. CO5K2
(or)
12. b. Explain the automation of Home Intrusion Detection with a neat diagram. CO5K2