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
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2026
IV Semester

Class : II UG **Time: 2 hours**
Major : English, ARVR , FSMD, Psychology, BCA, BCBT, Physical Education **Maximum Marks: 60**

23BCSGE5 Introduction to Internet of Things

Course Outcomes:
At the end of the course, students will:
1. Understand the fundamentals of IoT
2. Understand the various applications of IoT
3. Enable to learn about different communication modules
4. Understand the basics of cloud platforms for IoT
5. To work with Arduino and different sensors

Part - A **6 x 1 = 6**
Choose the Correct Answer

1. Which layer of IoT architecture is responsible for data collection from sensors? CO1 K1
   a. Application layer b. Network layer c. Perception layer d. Processing layer
2. Who is credited with coining the term "Internet of Things" in 1999? CO1 K1
   a. Vint Cerf b. Kevin Ashton c. Tim Berners-Lee d. Bill Gates
3. Which of the following is considered a "Short-Range" wireless networking standard commonly used for IoT wearables? CO3 K1
   a. NB-IoT b. LTE-M c. Bluetooth d. Satellite
4. Which of the following best defines IoT? CO1 K1
   a. A network of computers only b. A system connecting physical objects to the internet
   c. A software used for data storage d. A programming language
5. Which of the following is a short-range wireless communication protocol commonly used in IoT? CO2 K1
   a. SMTP b. Zigbee c. FTP d. HTTP
6. Which of the following is *not* a common application domain of IoT? CO2 K1
   a. Smart healthcare b. Smart agriculture c. Smart transportation d. Manual bookkeeping

Part - B **3 x 6 = 18**
Answer ALL Questions
Each answer should not exceed 400 words or two pages

7. a. Discuss a comprehensive overview of Internet of Things and its importance CO1 K2
   (or)
7. b. Explain the Design Architecture of Internet of Things. CO2 K2

8. a. Examine the role of IoT in the development of Smart Cities, highlighting at least three key applications. CO1 K2
   (or)
8. b. Explain how IoT-enabled Smart Cities improve urban sustainability and resource management. CO2 K2

9. a. Write a short note on MQTT. CO3 K2
   (or)
9. b. Explain the role and significance of Communication Modules in an IoT. CO3 K2

Part - C **3 x 12 = 36**
Answer ALL questions
Each answer should not exceed 800 words or four pages

10. a. Briefly discuss on IoT enabling technologies, IoT levels and the advantages of IoT. CO1 K2
    (or)
10. b. Explain the importance of IoT-based systems over traditional monitoring systems ,with three real time examples. CO1 K2

11. a. Explain the impact of IoT in various domains and advantage of Home automation and smart street Lighting. CO1 K2
    (or)
11. b. Discuss the advantages and disadvantages of IoT in healthcare. CO2 K2

12. a. Explain wireless networking and communication protocols in the context of IoT. CO3 K2
    (or)
12. b. Briefly discuss the history and the challenges of IoT