Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd.u/s 3of UGC Act 1956, Category A by MHRD [now MoE]

Re-accredited with an A++ Grade by NAAC CGPA 3.65/4, Category I by UGC

Coimbatore-641043, Tamil Nadu, India

Continuous Internal Assessment I – August -2025

Semester V

Class : III UG **Time : 2 Hours**

Major : Computer Science **Max. Marks: 60**

23BCSDE5– Internet of Things

Course Outcomes:

C01: Obtain knowledge on the basic ideas of Microcontrollers and Actuators.

CO2: Acquire skills in the functionalities of sensor and its working principle.

C03: Gain knowledge in the general concepts of communication protocols

CO4: Familiarize about Hardware components and sensors used for developing IoT Protocols.

CO5: Master the basics of data Analytics and cloud computing

Part A **6 x 1 =6**

Choose the Correct Answer

1 . IoT devices are connected using_____. CO1K1

a) Wires only b) Wireless networks c) USB cables d) optical fibres

2 . What does IoT stand for? CO1K1

a) Internet of Things b) Internet of Technology

c) Interface of Things d) Integration of Technology

3 . Which of these sensors is used in IoT systems for detecting motion or movement? CO2K2

a) Humidity sensor b)Pressure sensor c) GPS sensor d) Motion sensor

4 . Zigbee operates based on which IEEE standard? CO2K2

A. 802.3 B. 802.11 C. 802.15.4 D. 802.16

5. Which of the following technologies is commonly used for short-range wireless communication in IoT? CO3K1

a) Bluetooth b) LoRaWAN c) NB-IoT d) 5G

6. What is the role of a gateway in an IoT network? CO3K1

a) Store data permanently b) Translate protocols and connect devices to the cloud

c) Provide internet d) Act as a firewall

Part B **3 x 6 = 18**

Answer ALL questions

Each answer should not exceed 400 words or two pages

7. a. Explain about the Enablers of IoT. CO1K2

(or)

7. b. Summarize the characteristics of IoT. CO1K3

8. a. Differentiate between Arduino UNO and Arduino NANO. CO1K4

(or)

8 .b. Explain about light sensor and temperature sensor. CO2K3

9. a. What is Zigbee and explain in detail. CO2K4

(or)

9 .b. Explain about fundamentals of Networking. CO3K2

Part C **3 x 12 = 36**

Answer ALL questions

Each answer should not exceed 800 words or four pages

10. a. Explain about IoT Communication API's. CO1K2

(or)

10. b. Explain about Wireless Sensor Networks. CO2K2

11 .a. Explain about MicroController and its types. CO1K6

(or)

11. b. Explain about the types of sensors. CO2K4

12 .a. Explain about

i)RFID ii) Wireless Bluetooth sensors and iii) Wi-Fi module CO2K4

(or)

12 .b. Explain briefly about Machine to Machine Communication. CO3K2

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Number of copies: 120 **Staff in charge: Dr.M.Krishnaveni**

Campus-I(60)+Campus-II(60) **Ms.C.Kamali**