G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

UG DEGREE END SEMESTER EXAMINATIONS - APRIL 2025.

(For those admitted in June 2021 and later)

PROGRAMME AND BRANCH: B.C.A.

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
VI	PART - III	CORE	U21CA611	IoT APPLICATIONS

Date & Session: 29.04.2025 / FN   **Time : 3 hours**   **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	What is IoT? a) network of physical objects embedded with sensors b) network of virtual objects c) network of objects in the ring structure d) network of sensors
CO1	K2	2.	Fog computing can be perceived in _____ and _____. a) Big data and Cloud systems b) Big data and IoT c) Cloud systems and IoT d) Big data, Cloud systems and IoT
CO2	K1	3.	Which of the following is not an actuator in IoT? a) Stepper motor b) A fan c) An LED d) Arduino
CO2	K2	4.	Which bluetooth version enables low energy? a) Bluetooth 3.0 b) Bluetooth 4.0 c) Bluetooth 2.0 d) Bluetooth 1.0
CO3	K1	5.	What is Full form of MQTT _____. a) Message Queuing Telemetry Transport b) Message Queuing Telegram Transport c) Message Queue Telegram Transport d) Message Queue Telemetry Transport
CO3	K2	6.	URI and content type support is which protocol feature? a) SPI b) UDP c) HTTP d) CoAP
CO4	K1	7.	What is Arduino? a) Programming language b) Image editing software c) Open-source electronics platform d) Text editor
CO4	K2	8.	What language is the Arduino IDE built on? a) Java b) HTML c) C/C++ d) Python
CO5	K1	9.	Which of the following is a common application of IoT technology? a) Automated email systems b) Voice-activated shopping c) Smart homes d) Text messaging
CO5	K2	10.	The core element of architecture of smart city is _____. a) Mobile Unified Service b) Urban Application Platform c) Management center d) Integrated Information Provider

Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer ALL Questions choosing either (a) or (b)
CO1	K3	11a.	What is the evolution of IoT.
			(OR)
CO1	K3	11b.	Compare Fog computing and Edge computing in IoT.
CO2	K3	12a.	Illustrate the functional blocks of IoT ecosystem.
			(OR)
CO2	K3	12b.	Compare Sensors and Actuators in IoT.
CO3	K4	13a.	Examine the Big data Analytics.
			(OR)
CO3	K4	13b.	Clarify the RFID in IoT.
CO4	K4	14a.	Categorize the Programming in IoT platform.
			(OR)
CO4	K4	14b.	Identify the GPIO Pins.
CO5	K5	15a.	Discuss about Smart City and smart mobility.
			(OR)
CO5	K5	15b.	Show the business models for the IoT.

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer ALL Questions choosing either (a) or (b)
CO1	K3	16a.	Construct the IoT architecture.
			(OR)
CO1	K3	16b.	Complete the core IoT Functional Stack.
CO2	K4	17a.	How would you clarify the control unit in IoT.
			(OR)
CO2	K4	17b.	Categorize the Communication modules in IoT.
CO3	K4	18a.	Compare and contrast various IoT protocols.
			(OR)
CO3	K4	18b.	Examine wireless sensor network.
CO4	K5	19a.	Discuss about Raspberry pi platform.
			(OR)
CO4	K5	19b.	How to assess the GPIO pins.
CO5	K5	20a.	Compare the Home Automation and Smart Agriculture.
			(OR)
CO5	K5	20b.	Discuss about Environment monitoring and surveillance.