PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch - APPLIED ELECTRONICS

IOT AND ITS APPLICATIONS

Time: Three Hours   Maximum: 75 Marks

SECTION-A (10 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	An IoT network is a collection of _____ devices. a) Signal b) Machine to Machine c) Interconnected d) Network to Network	K1	CO1
	2	Identify the protocol used to link all devices in IoT, a)UDP b) TCP/IP c)HTTP d)Network	K2	CO1
2	3	What is the use of PWM signals in IoT development boards? a) They are used by sensors to have analog input b) They are used by sensors to have digital input c) They are used by actuators to have analog input d) They are used by actuators to have digital input	K1	CO2
	4	Arduino shields are also called as _____ a) Extra peripherals b) Add on modules c) Connectivity modules d) Another Arduinos	K2	CO2
3	5	_____ allows us to control electronic components. a) RESTful API b) CoAP API c) HTTP d) MQTT	K1	CO3
	6	The RPL protocol supports _____ a) Loop detection b) Data path validation c) Both a and b d) None of the above	K2	CO3
4	7	How many number of elements are in the Open IoT Architecture? a)3 elements b) 7 elements c) 8 elements d) 6 elements	K1	CO4
	8	Name the services used to connect IoT with date a) Cloud b) Big data c) Internet d) Network	K2	CO4
5	9	IoT devices typically communicate through which of the following methods? a) Human Intervention b) Direct cable Connection c) Internet Protocols d) Sound Waves	K1	CO5
	10	What are the functions of Data Mining? a) Association and correctional analysis classification b) Prediction and characterization c) Cluster analysis and Evolution analysis d) All of the above	K2	CO5

SECTION - B (35 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the types of IoT Design methodology.	K5	CO1
		(OR)		
	11.b.	Elaborate IoT cloud network and service.		
2	12.a.	Discuss the applications of Wireless sensor and Adhoc Network.	K4	CO2
		(OR)		
	12.b.	Explain the QoS in IoT system.		
3	13.a.	Briefly explain the function of Embedded Hardware.	K5	CO3
		(OR)		
	13.b.	Explain the CC32XX Launchpad for Rapid Internet Connectivity.		
4	14.a.	Discuss different types of Building Android Applications.	K6	CO4
		(OR)		
	14.b.	Write Short note on Building serve side components for IoT Application.		
5	15.a.	Elaborate the functions of data models and Data acquisition in sensor Network .	K5	CO5
		(OR)		
	15.b.	Explain the applications of Mining Data Streams.		

SECTION -C (30 Marks)
Answer ANY THREE questions
ALL questions carry EQUAL Marks   (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the Basic Architecture and Components with application.	K5	CO1
2	17	Describe the function of LORA and ZIGBEE.	K4	CO4
3	18	Discuss about briefly the Connected sensor and Actuators.	K5	CO5
4	19	Write a note on Operating system for IoT Application.	K6	CO3
5	20	Explain the Data source in IoT and Data Types in IoT with example.	K4	CO5

Z-Z-Z   END