PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Fourth Semester)

Branch- COMPUTER TECHNOLOGY

INTERNET OF THINGS

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	Which layer is used for wireless connection in IoT devices? a) Application layer b) Network layer c) Data link layer d) Transport layer	K1	CO1
	2	MQTT Protocol is _____ oriented. a) Data b) Message c) Network d) Device	K2	CO3
2	3	Which view of the IoT design methodology focuses on how the system operates and interacts with its environment? a) Functional b) Operational c) Structural d) Behavioural	K1	CO1
	4	Facebook Tackles Big Data With _____ based on Hadoop. a) 'Project Prism' b) 'Prism' c) 'Project Big' d) 'Project Data'	K2	CO3
3	5	What does "SoC" stand for in IoT development? a) System on Chip b) Smart Object Controller c) Secure Operational Circuit d) Serial Output Communication	K1	CO1
	6	Which of the following is NOT a component of an IoT system? a) Sensors b) Actuators c) Database Servers d) Typewriters	K2	CO3
4	7	What is the role of Apache Kafka in IoT? a) Streaming data processing b) Machine learning model deployment c) Image processing d) Physical network communication	K1	CO1
	8	What is the main benefit of using AWS for IoT applications? a) High electricity consumption b) Cloud storage and computing for IoT devices c) Expensive hardware requirements d) Limited connectivity	K2	CO3
5	9	What does CPwE stand for in industrial IoT? a) Cloud Processing with Ethernet b) Converged Plantwide Ethernet c) Computer Processing with Electrical Systems d) Centralized Plantwide Engineering	K1	CO1
	10	What is the primary goal of Smart Traffic Control? a) Increase congestion b) Reduce accidents and optimize traffic flow c) Block roads during peak hours d) Increase fuel consumption	K2	CO3

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 IoT World Forum (IoTWF) architecture and discuss alternative IoT models with examples.	K3	CO5
		(OR)		
	11.b.	Explain the evolution of IoT and its impact on modern technology.		
2	12.a.	Compare IEEE 802.15.4 and LoRaWAN in terms of access technology.	K5	CO5
		(OR)		
	12.b.	Discuss the concept of constrained nodes and constrained networks in IoT.		
3	13.a.	Recall about the IoT system building blocks with an example.	K4	CO1
		(OR)		
	13.b.	Discuss the features of an Arduino board, and Explain how is it programmed?		
4	14.a.	Distinguish between structured and unstructured data in IoT.	K4	CO4
		(OR)		
	14.b.	Examine the role of machine learning in IoT data analytics.		
5	15.a.	Explain the Cisco IoT system with its key components.	K3	CO5
		(OR)		
	15.b.	Deduct IBM Watson IoT platform and its applications.		

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	Discuss the roles of sensors, actuators, smart objects, and how they connect to form an IoT system.	K4	CO3
2	17	Examine the different IoT access technologies at the Physical and MAC layers.	K4	CO4
3	18	Explain the design methodology for IoT system development.	K5	CO3
4	19	Discuss Edge Streaming Analytics and Network Analytics in IoT.	K4	CO5
5	20	Interpret the GridBlocks Reference Model in the power utility industry.	K5	CO3

Z-Z-Z   END