

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BVoc DEGREE EXAMINATION MAY 2026
(Sixth Semester)**

Branch - NETWORKING & MOBILE APPLICATION

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	Identify the primary idea behind IoT evolution ____. (i) Replace computers (ii) Connect people through social media (iii) Connect physical objects to the Internet (iv) Increase mobile phone sales	K1	CO1
	2	Predict which option correctly explains the core functional stack of IoT. (i) Input, output, and storage components (ii) Device, communication, services, and application layers working together (iii) Monitor, keyboard, and CPU components (iv) Compiler and interpreter modules	K2	CO1
2	3	Recall IEEE 802.15.4 mainly defines which among the following? (i) Application layer (ii) Physical and MAC layers (iii) Transport layer (iv) Network layer	K1	CO2
	4	Why is IPv6 preferred for IoT applications? (i) It is slower than IPv4 (ii) It provides fewer IP addresses (iii) It supports a large number of devices with more address space (iv) It is used only in computers	K2	CO2
3	5	What are Embedded systems? (i) General purpose computers (ii) Special purpose computing systems (iii) Only laptops (iv) Supercomputers	K1	CO3
	6	Infer which statement best describes Raspberry Pi operating system support. (i) It can run only Windows XP (ii) It supports Linux-based operating systems (iii) It cannot run any OS (iv) It supports only DOS	K2	CO3
4	7	Which of the following is an example of structured data? (i) Relational database table (ii) Social media post (iii) Image file (iv) Sensor audio recording	K1	CO4
	8	Predict among the following Django is written in ____. (i) Java (ii) C++ (iii) Python (iv) PHP	K2	CO4

Cont...

5	9	Identify a key feature of Cisco IoT System (i) Converged network for IoT devices (ii) SQL database management (iii) Social media integration (iv) Offline file storage only	K1	CO5
	10	Show what is a major benefit of IoT in smart and connected cities. (i) Increased paper usage (ii) Improved resource efficiency and citizen convenience (iii) Manual monitoring systems (iv) Offline network management	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 Evolution of Internet of Things and its Key Drivers.	K2	CO1
		(OR)		
	11.b.	Show the relationship between Sensors, Actuators, and Smart Objects.		
2	12.a.	Explore Constrained Nodes and Constrained Networks in IoT.	K3	CO2
		(OR)		
	12.b.	Determine the features of CoAP protocol.		
3	13.a.	Illustrate how a microcontroller can be used to control a temperature-based fan system.	K3	CO3
		(OR)		
	13.b.	Compare and select between Arduino and Raspberry Pi for a Home Automation System. Justify your choice.		
4	14.a.	Construct a scalable IoT data storage solution using NoSQL database.	K4	CO4
		(OR)		
	14.b.	Analyze NETCONF-YANG for managing IoT network devices. .		
5	15.a.	Analyze the Converged Plantwide Ethernet (CPwE) model in manufacturing industries.	K4	CO5
		(OR)		
	15.b.	Analyze the Converged Plantwide Ethernet (CPwE) model in manufacturing industries.		

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 IoT World Forum (IoTWF) Architecture.	K4	CO1
2	17	Explain how 6LoWPAN optimizes IPv6 for IoT.	K4	CO2
3	18	Identify IoT Design Methodology to develop a Smart Street Light System.	K4	CO3
4	19	Compare and analyze the use of Edge Analytics vs Cloud Analytics in IoT.	K4	CO4
5	20	Explain the role of GridBlocks Reference Model in power utility IoT systems. Justify its adoption.	K4	CO5

Z-Z-Z END