

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(Fourth Semester)

BRANCH – COMPUTER TECHNOLOGY

INTERNET OF THINGS

Time: 3 Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5 Marks)

- 1 Which of the following is used to capture data from the physical world in IoT devices?
(i) Actuators (ii) Sensors
(iii) Microcontrollers (iv) Microprocessors
- 2 The length of IPV6 address is _____.
(i) 32 bits (ii) 64 bits
(iii) 128 bits (iv) 256 bits
- 3 What language is a typical Arduino code based on?
(i) C/C++ (ii) Assembly code
(iii) Python (iv) Java
- 4 Which is of the following is not a NoSQL Database type?
(i) SQL (ii) Document Database
(iii) ORACLE (iv) JSON
- 5 Which one of the following is not an IoT device?
(i) Laptop (ii) Tablet
(iii) Arduino (iv) Table

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Explain the evolution of Internet of Things.
OR
b Prepare the short notes on actuators.
- 7 a Summarise the concepts of MAC layer.
OR
b Analyze the importance of IP versions.
- 8 a Show the importance of Arduino.
OR
b Describe the feature of IDE programming.

Cont...

- 9 a Analyze the role of machine learning.
OR
b Explain in detail about the Hadoop ecosystem.
- 10 a Show the importance of power utility industry.
OR
b Narrate the smart parking architecture.

SECTION -C (30 Marks)

Answer ALL questions
ALL questions carry EQUAL Marks (5 x 6 = 30)

- 11 a Identify the importance of IoT World Forum.
OR
b Differentiate between the fog, edge and cloud in IoT.
- 12 a Analyze the Supervisory Control and Data Acquisition.
OR
b Express the significance of MQTT.
- 13 a Justify the need of IoT system building blocks.
OR
b Analyze the various functions of IDE programming.
- 14 a Summarise the concepts of structured and unstructured data.
OR
b Point out the features of NoSQL database in detail.
- 15 a Discuss about the Converged Plantwide Ethernet Model.
OR
b Analyze the GridBlocks reference model.

Z-Z-Z

END