

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch -- COMPUTER SCIENCE WITH DATA ANALYTICS

INTERNET OF THINGS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Which of the following is an example of a smart object?
(i) Smart thermostat (ii) Laptop computer
(iii) Smartphone (iv) All of the above.
- 2 Which of the following IoT access technologies operates on the 868 MHz frequency band?
(i) Bluetooth (ii) Wi-Fi (iii) Zigbee (iv) LoRaWAN
- 3 Edge Streaming Analytics is _____.
(i) Analyzing data at the edge of the network in real-time
(ii) Storing data at the edge of the network for later analysis
(iii) Transmitting data from devices to the cloud for analysis
(iv) Processing data at the cloud for real-time insights
- 4 Which of the following is a key component of the FAIR framework?
(i) Risk assessment (ii) Threat modeling
(iii) Vulnerability scanning (iv) Factor Analysis of Information Risk
- 5 What is the primary goal of Smart Traffic Control Architecture?
(i) To improve crop yields in agriculture
(ii) To optimize traffic flow
(iii) To enhance customer experience in retail
(iv) To reduce energy consumption in buildings

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Explain the genesis of IOT.
OR
b Discuss about the IoT world forum.
- 7 a Explain about topology in detail.
OR
b Elucidate LORA WAN.
- 8 a Outline the data analytics for IoT.
OR
b Explain about network analytics.
- 9 a Outline the history of IoT security.
OR
b Highlight security practices.
- 10 a Sketch the connected manufacturing.
OR
b Summarise the smart traffic control architecture.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Analyze the M2M IoT standard architecture.
OR
b Discuss about sensor and actuators in detail.
- 12 a Elucidate physical layer and MAC layer.
OR
b Outline the optimizing IP for IoT.
- 13 a Enumerate about the machine learning.
OR
b Examine the edge streaming Analytics.
- 14 a Discuss about common challenges in IoT security.
OR
b Elucidate the OCTAVE and FAIR.
- 15 a Discuss about architecture for the connected factory.
OR
b Elucidate about smart parking architecture.

Z-Z-Z

END