

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

**MSc DEGREE EXAMINATION MAY 2024**  
(Third Semester)

Branch – **COMPUTER SCIENCE**

**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 How many elements are in the Open IoT Architecture?  
 (i) 3 elements (ii) 7 elements  
 (iii) 8 elements (iv) 6 elements
- 2 MQTT is mainly used for \_\_\_\_\_  
 (i) M2M communication (ii) Device communication  
 (iii) Internet communication (iv) Wireless communication
- 3 Which wireless technology is commonly used to connect wearable IoT devices to smartphones?  
 (i) Bluetooth (ii) Wi-Fi  
 (iii) NFC (iv) GPS
- 4 Which of the following protocol is related to Link Layer?  
 (i) 802.11 (ii) IPv4/IPv6  
 (iii) TCP (iv) HTTP
- 5 Which keyword is used for function in Python language?  
 (i) Function (ii) def  
 (iii) Fun (iv) Define

**SECTION - B (15 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks

(5 x 3 = 15)

- 6 a What is the Internet of Things (IoT)?  
 OR  
 b Describe the vision of IoT.
- 7 a Define AMQP.  
 OR  
 b What is REST architecture?
- 8 a How does remote vehicle diagnosis work?  
 OR  
 b What are the benefits of IoT wearable devices?
- 9 a Explain about the Application Development phase in IoT platform design.  
 OR  
 b Briefly describe IoT Level Specification.
- 10 a Write a user-defined function to generate odd numbers.  
 OR  
 b Describe the different access modes of the files with an example.

**Cont...**

**SECTION -C (30 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a Explain about the IoT ecosystem.  
OR  
b Discuss various applications of IoT.
- 12 a Describe briefly about the architecture of MQTT.  
OR  
b Explain the various security protocols involved in each layer of IoT.
- 13 a Write a short note on IoT-based smart farming.  
OR  
b Explain the benefits of IoT payment.
- 14 a Describe the Functional View Specification of IoT platform design methodology.  
OR  
b Briefly explain the Operational View Specification.
- 15 a Discuss the int(), float(), str(), chr() and complex() type conversion functions with examples.  
OR  
b Discuss the following list functions  
(i) len() (ii) sum() (iii) any() (iv) all() (v) sorted()

Z-Z-Z

END