

P P SAVANI UNIVERSITY

Fourth Semester of B.Sc. (IT) Examination

May 2022

SSIT2051 Internet of Things

18.05.2022, Wednesday

Time: 09:00 a.m. To 11:30 a.m.

Maximum Marks: 60

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in same answer sheet.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

- Q - 1** Answer the Following: [05]
- (i)** Which of the following is not an advantage of IoT?
(a) Improved Customer Engagement
(b) Security
(c) Reduced Waste
(d) Enhanced Data Collection
- (ii)** The term "Internet of Things" was coined by?
(a) Kevin Ashton
(b) Guido van Rossum
(c) IBM
(d) Ross Ihaka
- (iii)** Which of the following category is used for business to consumer process?
(a) Group IoT
(b) Community IoT
(c) Industrial IoT
(d) Personal IoT
- (iv)** Which of the following is not an IoT platform??
a) Amazon Web Services b) Microsoft Azure
c) Salesforce d) Flipkart
- (v)** Which of the following is not a sensor in IoT?
a) BMP280 b) DHT11 c) Photo resistor d) LED
- Q - 2 (a)** Differentiate MPU and MCU. [05]
- Q - 2 (b)** Explain layered architecture of IOT. [05]
- OR**
- Q - 2 (b)** Discuss Advantages of IOT. [05]
- Q - 3 (a)** Explain Arduino Uno with its architecture. [05]
- Q - 3 (b)** Explain ESP8266. [05]
- OR**
- Q - 3 (b)** Differentiate Sensors and Actuators. [05]
- Q - 4** Attempt Any One. [05]
- (i)** Explain Types of Sensors.
- (ii)** Explain Raspberry Pi.

SECTION - II

- Q - 1** Answer the Following: [05]
- (i)** RFID stands for _____.
- (ii)** MQTT is _____ oriented.
(a) Data (b) Message
(c) Network (d) Device

- (iii) The higher the QoS, the higher the performance in MQTT?
(a) True (b) False
- (iv) BLE termed as _____.
- (v) What are the disadvantages of RFID?
a) High-cost
b) Overhead reading
c) Reduce manpower
d) Both a and b
- Q - 2 What's RFID? Explain it's working with data format. [07]
- Q - 3 Discuss MQTT framework working and message format in detail. [08]
- Q - 4 Attempt any one. [10]
- (i) Define crucial terms of IoT security. With a case study relate the concept of securing IoT.
- (ii) Briefly discuss role of Cloud in IoT. Interface and Program LED with ESP8266 to control it with local http server
