

# P P SAVANI UNIVERSITY

Fourth Semester of B.Sc.(IT) Examination

Nov-Dec 2021

SSIT2051 Internet of Things

03.12.2021, Friday

Time: 12:30 p.m. To 03:00 p.m.

Maximum Marks: 60

## Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
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) Sensors are type of transducers?  
(a) True (b) False
- (ii) Which one of the following is an type of actuator?  
(a) MPU6050 (b) Magnetic Relay (c) PIR sensor
- (iii) MCU stands for \_\_\_\_\_
- (iv) Arduino IDE is used for managing/uploading code on development boards?  
(a) True (b) False
- (v) ESP8266 have \_\_\_\_\_ WiFi band.  
(a) 5 GHz (b) 2.4 GHz (c) 6 GHz
- Q - 2 Briefly define all key criteria to choose a development board in IOT. [07]
- Q - 3 Define types of sensor with it's examples. [08]
- Q - 4 Attempt any one. [10]
- (i) What's Raspberry Pi? Explain its component layout
- (ii) Sketch interfacing diagram to interface PIR sensor with program.

### SECTION - II

- Q - 1 Answer the Following: (MCQ/Fill in the Blanks) [05]
- (i) iBeacon is a BLE device?  
(a) True (b) False
- (ii) List 3 cloud IoT platforms.
- (iii) MQTT stands for \_\_\_\_\_.
- (iv) Which of the following is the way in which an IoT device is associated with data?  
(a) Internet (b) Cloud (c) Automata (d) Network
- (v) What is another name for I2C?  
(a) Signal wire interface (b) Two wire interfaces  
(c) UART (d) USART
- Q - 2 Distinguish Merit and Demerit of RFID. [07]
- Q - 3 What's MQTT? Explain it's working with diagram. [08]
- Q - 4 Attempt any one [10]
- (i) How security is important in IoT? How it can be improved?
- (ii) Sketch interfacing diagram to interface and blink LED using blynk IoT cloud with program.

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