

TYBSC IT SEM-V
IoT QUESTION BANK

UNIT-I

- Q.1 What is IoT? Explain the four flavors of the IoT.
- Q.2 Explain the IoT stack with diagram.
- Q.3 Describe the properties of smart physical objects.
- Q.4 Describe the design principles for IoT.
- Q.5 Explain the calm technology or calm design.
- Q.6 Explain five metaphors for IoT.
- Q.7 What is small and loosely joined IoT?
- Q.8 What is the first class citizen on the internet? Explain with example.
- Q.9 Explain the role of affordances in digital transformation and internet of things.
- Q.10 Explain the seven principles of IoT.
- Q.11 Explain the six communication protocol used by IoT.
- Q.12 Explain the comparison of BLE to NFC.
- Q.13 Describe the multipath TCP deployment.
- Q.14 How to connect device to internet.
- Q.15 Explain IPV6 for IoT.
- Q.16 Explain the following:
 - i. MQTT- protocol architecture
 - ii. MQTT-SN – protocol architecture

UNIT – II

- Q.1 Explain the primary guidelines for prototyping.
- Q.2 Describe the benefits of sketching and prototyping.
- Q.3 Explain the physical prototype and mass personalization.
- Q.4 Explain open source vs closed source.
- Q.5 Which type of software should you use for business purposes?
- Q.6 Where does open source fit in your business?
- Q.7 Describe closed source for mass market projects.
- Q.8 Define Electronics, Sensors and Actuators.
- Q.9 Explain the several factors that need to be considered when identifying and appropriate platform.
- Q.10 Explain the characteristics of IoT device.
- Q.11 Explain the Rasberry pi 3 model B microcontroller board.

UNIT - III

- Q.1 Explain the non digital method.
- Q.2 Define and explain the Laser cutting.
- Q.3 What is 3D printing? Classify and explain the types of 3D printing.
- Q.4 Define and explain the concept of CNC milling.
- Q.5 Define and explain the concept of repurposing/Recycling.
- Q.6 Define following:
 - i. Scraping
 - ii. Legalities
 - iii. Clockdillo
- Q.7 How to use the curl to test?
- Q.8 Explain the concept designing a web application for humans.

Q.9 Explain polling.

UNIT – IV

- Q.1 Classify and explain the types of memory.
- Q.2 Describe the performance and battery life.
- Q.3 Define space and time.
- Q.4 Write a short note on business model canvas.
- Q.5 Describe funding an Internet of Things startup.
- Q.6 Describe hobby projects and opensource.
- Q.7 Define the venture capital.
- Q.8 Explain the following:
 - i. Govt. funding.
 - ii. Crowd funding.

UNIT - V

- Q.1 What is a design kit?
- Q.2 Classify and explain manufacturing printed circuit boards.
- Q.3 Describe the correctness and maintainability.
- Q.4 Explain the following terms:
 - i. Privacy
 - ii. Control
 - iii. Disrupting control
 - iv. Crowd sourcing
- Q.5 How Internet of Things as a part of solution?
- Q.6 Explain the cautious optimism.