

May 2023

B.Tech. - VI SEMESTER (Reappear)**Internet of Things (EIEL-601)****Time: 3 Hours****Max. Marks:75**

- Instructions:**
1. It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.
 2. Answer any four questions from Part -B in detail.
 3. Different sub-parts of a question are to be attempted adjacent to each other.

PART -A

- Q1 (a) Which of the communication protocols are used by IoT? (1.5)
- (b) Define MQTT. (1.5)
- (c) What is IoT connectivity? (1.5)
- (d) Define Actuator. (1.5)
- (e) What is a wireless sensor network? (1.5)
- (f) What is the significance of analyzing the data generated by IoT application? (1.5)
- (g) What is the limitation of barcode over RFID system? (1.5)
- (h) What is the use of SPI and I2C interfaces on raspberry pi? (1.5)
- (i) What is the goal of open architecture? (1.5)
- (j) What is the importance of the Internet of Everything? (1.5)

PART -B

- Q2 (a) What are the protocols associated with network/internet layer of IoT? Explain them in detail. (9)
- (b) Compare the protocols associated with transport layer of IoT. (6)
- Q3 (a) Draw the structure of M2M Gate way Network. (6)
- (b) Explain the differences between Machines in M2M and Things in IOT? (9)
- Q4 (a) What are the basic operations available in CoAP protocol? Briefly explain. (9)
- (b) What are the major Privacy and Security Issues in case of Internet Of Things (IoT)? (6)
- Q5 (a) Which protocol is used to link all the devices in the IoT? Explain in detail. (8)
- (b) Explain Raspberry Pi GPIO headers with neat diagram. (7)
- Q6 (a) What are the different types of Sensors used in IoT Network? Explain Sensor Network Technology in IoT. (10)
- (b) What are the major Privacy and Security Issues in case of Internet Of Things? (5)
- Q7 (a) List and explain the requirements that IoT application for industrial application should meet. (6)
- (b) How IoT technology is impacting the healthcare sector and changing our everyday lifestyle. (9)