**Mid-2 Tutorial questions**

1)Explain the Enabling Technologies of IoT?.

2)Discuss the importance of Big Data Analytics in IoT. How does it help in extracting value from IoT-generated data?

3) What is SCADA? Explain with suitable diagram for IoT communication system?

4) Explain the working principles of different types of sensors. Provide examples of specific applications for temperature, humidity, and light sensors.

5) What are the key components of a Raspberry Pi -based IoT design? How does it differ from an Arduino -based design?

6) Explain the concept of Protothreads in Contiki OS and how they aid in multitasking on resource-constrained devices.

7) Explain the necessity for clustering in IoT networks, particularly with regard to scalability. Provide a brief overview of why clustering is essential.

8) Write a short note on Contiki OS.

9) Illustrate how to interface a LED to raspberry pi and write a Program to blink it.

10) Demonstrate the need of data analytics for IoT and brief the challenges faced by IoT data analytics.

11) Design a model for smart city applications and services.

12) What are the "4-V's" of data analytics, and how do they relate to IoT data? Explain the significance of each "V."

13) Discuss a case study in smart agriculture. How does IoT technology contribute to improved agricultural practices and resource management?

14) Describe the significance of cloud computing in the context of IoT.

15) Describe a smart home case study where IoT is used to create a connected and automated home environment. What are the practical benefits of this technology in daily living?