

11 DEC.2025 TE EXTC (SEM-VI) C SCHEME IOT AND IND.4.0 QP CODE:10093895

Duration: Three Hours

Maximum Marks: 80

N.B.:

1. Question No.1 is compulsory.
2. Out of the remaining five questions attempt any three questions.
3. Assume suitable data if required and state it clearly.
4. Figures in brackets to the right indicate full marks.

- 1 Attempt any FOUR (20)
 - a Describe the barriers to Value Creation in Industry 4.0. (5)
 - b Compare Physical design of IoT and Logical design of IoT. (5)
 - c Summarize the design principles of HTTP. (5)
 - d Explain how map reduce is used for batch data analysis. (5)
 - e Compare Augmented reality and Virtual reality. (5)
- 2 a Discuss the functional blocks of an IoT system. Provide an overview of each block and it's significance in an IoT ecosystem. (10)
b Explain Chef tools for IoT along with case study. (10)
- 3 a Summarize in short on Hadoop map reduce for big data analysis. (10)
b Describe cyber physical system in relation to industry 4.0 (10)
- 4 a Discuss human machine interaction in industry 5.0 in detail. (10)
b Explain the SIGFOX technology. What are it's unique features, and how does it support low-power, wide- area communication. (10)
- 5 a Explain the role of artificial intelligence in industry 4.0 (10)
b Identify the design challenges in industry 4.0 and its solution. (10)
- 6 a Design a weather monitoring IoT system using Web sockets (10)
b Draw architecture of SOAP and REST and give its details. (10)
