

Code No: R194204E

R19

Set No. 1

IV B.Tech II Semester Advance Supplementary Examinations, July-2023

INDUSTRIAL INTERNET OF THINGS

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 75

*Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks*

UNIT I

- 1 a) Explain the Role of IIoT in Manufacturing Processes. [7]
b) Discuss the Trends and future Real life example of IIoT. [8]
(OR)
- 2 a) Compare and contrast between IoT and IIoT. [7]
b) Discuss the Challenges and Benefits in implementing IIoT in industries. [8]

UNIT II

- 3 a) Compare Different types of IoT Architectures. [7]
b) With neat sketch explain the WSN network design or IoT. [8]
(OR)
- 4 a) Discuss Roles of actuators and various types of actuators used in IIoT. [7]
b) What is the Modbus Protocol and How Does It Work? Explain. [8]

UNIT III

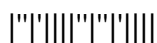
- 5 a) Explain with example MQTT protocol. What is the role of MQTT protocol in IoT? [7]
b) Write a short note on: Wi-Fi, Wi-Fi direct and Zigbee protocols. [8]
(OR)
- 6 a) Explain the usage of cloud platforms for IoT applications and services. [7]
b) Discuss in detail about the constraint application protocol (CoAP). [8]

UNIT IV

- 7 a) Briefly Discuss about Vulnerabilities of IoT. [7]
b) With neat sketch explain layered attacker model in IoT security. [8]
(OR)
- 8 a) Explain the Data visualization Techniques used in IoT. [7]
b) What Are the Key Requirements of IoT Security? Explain. [8]

UNIT V

- 9 a) Define digital twin. Explain the benefits of digital twin. [7]
b) With neat sketch explain Digital twin conceptual architecture. [8]
(OR)
- 10 a) Describe in detail about the Digital Twin process design and information requirements. [7]
b) Explain the Digitalizing asset behaviour using simulation mathematical modelling. [8]



Code No: R1942051

R19

Set No. 1

IV B.Tech II Semester Advance Supplementary Examinations, July – 2023
MANAGEMENT AND ORGANIZATIONAL BEHAVIOR
(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours

Max. Marks: 75

Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks

UNIT I

- 1 a) What are the concepts of organization and management? [7]
b) What are the functions of management? [8]
(OR)
- 2 a) What is system approach to management explain with examples? [7]
b) What are the principles of Taylor's Scientific Management theory? [8]

UNIT II

- 3 a) What is the concept and scope of human resource management? [7]
b) What are the functions of HR Manager? [8]
(OR)
- 4 a) Why is manpower planning important? [7]
b) What is the role of training and development in HR? [8]

UNIT III

- 5 a) What is strategic management and its process? [7]
b) What are the contemporary issues in strategic operations management? [8]
(OR)
- 6 a) What are the elements of corporate planning? [7]
b) What is environmental scanning and its importance? [8]

UNIT IV

- 7 a) What are the steps of perceptual process? [7]
b) What is the meaning of impression management? Explain with examples [8]
(OR)
- 8 a) What are the main factors that affect personality development? [7]
b) What are the theories of attitude formation? [8]

UNIT V

- 9 a) What is group dynamics? explain with examples [7]
b) What are the causes and consequences of organizational conflict? [8]
(OR)
- 10 a) What are the major elements of organizational culture? [7]
b) What are the types of stress coping strategies? [8]



Code No: R1642041

R16

Set No. 1

IV B.Tech II Semester Advance Supplementary Examinations, July - 2023
CELLULAR AND MOBILE COMMUNICATIONS
(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B

PART-A(14 Marks)

1. a) Explain the Trunking efficiency. [2]
- b) Explain real time Co- Channel interference [2]
- c) Define the General formula for noise limited system. [2]
- d) Mention the effect on coverage and interference of mobile link by decrease in transmitted power level [3]
- e) Write a brief notes on paging channels. [2]
- f) List different services supported by GSM services [3]

PART-B(4x14 = 56 Marks)

2. a) Describe the digital cellular land mobile systems and the limitations of AMPS standard. [7]
- b) Distinguish between permanent splitting and dynamic splitting. [7]
3. a) Determine the real time co-channel interference measurement of mobile radio transreceivers. [7]
- b) Explain the near field and far field interference and how to avoid it. [7]
4. a) Discuss the coverage of cell site using Omni directional antennas. [7]
- b) Explain about unique situations of cell site antennas. [7]
5. a) Draw the diagram of frequency management chart and explain different channels in cellular system. [5]
- b) Explain the non-fixed channel assignment technique in detail. [5]
- c) Explain how 'grouping' of channels is achieved. [4]
6. Explain in detail the need for hand off and determine the probability of requirement of hand of [14]
7. a) What are the various functional blocks in GSM architecture? Explain Network switching subsystem. [7]
- b) Explain the concept of CDMA and write its advantages over TDMA. [7]

