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Question Paper Code: 97802

B.E./B.Tech. DEGREE EXAMINATION, NOV 2023

Seventh Semester

Information technology

19UIT702 - INTERNET OF THINGS SYSTEMS AND APPLICATIONS

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 5 = 25 Marks)

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|---|---|---------|
| 1 | Explain why IoT is Strategically sound. | CO1-U |
| 2 | Apply the process of Sigfox in indirect device connectivity | CO2-App |
| 3 | Explain about IEEE 802.15.4 Architecture. | CO1-U |
| 4 | Analyze the growth of operational and transactional systems. | CO2-App |
| 5 | Develop the system architecture for the Microsoft Azure IoT hub | CO2-App |

PART – B (5 x 15= 75 Marks)

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|---|---|---------|------|
| 6 | (a) Describe the various number of influential technologies for the IoT realization. | CO1-U | (15) |
| | Or | | |
| | (b) Describe the different Use cases for strengthening and sustaining the M2M technology campaign | CO1-U | (15) |
| 7 | (a) Examine the three weightless open standards in cloud hosting Service which operates in sub-1GHz unlicensed Spectrum | CO2-App | (15) |
| | Or | | |
| | (b) Develop Mobile network Architecture for supporting IoTE co system with following main requirements:
1. To Support Massive number of devices
2. To support high data rate
3. To reduce the latency between end-to end devices To provide consistent QOE and to reduce capital and operation cost. | CO2-App | (15) |

- 8 (a) Analyze the Performance of EPC tags with various CO3 -Ana (15)
Functionality.
- Or
- (b) Analyze the IEEE 802.15.4 architecture supporting CO3 -Ana (15)
transmission for different frequency bands in two types of
network nodes.
- 9 (a) Discuss the IoT portion for smarter enterprises and CO1-U (15)
environments with its following tasks.
1. Infrastructure optimization
2. Process excellence
3. Architecture as simulation
4. Technology adaption and adoption
Leveraging data (internal as well as external) for deriving
insights
- Or
- (b) Describe the role and responsibilities of the IoT technologies CO1-U (15)
and tools for the smarter enterprises and environments.
- 10 (a) Discuss the IoT Application development and deployment CO1-U (15)
platforms.
- Or
- (b) Explain the Journey of IOT CO1-U (15)