

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE – SEMESTER- VIII EXAMINATION-SUMMER 2023****Subject Code: 2180709****Date: 19/06/2023****Subject Name: IOT and Applications****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

|            |                                                                          | <b>MARKS</b> |
|------------|--------------------------------------------------------------------------|--------------|
| <b>Q.1</b> | (a) Explain issues of IOT.                                               | <b>03</b>    |
|            | (b) Discuss Advantages and Disadvantages of IoT                          | <b>04</b>    |
|            | (c) Explain Architecture of Internet of Things.                          | <b>07</b>    |
| <b>Q.2</b> | (a) What is Global Value Chain? Explain it with a diagram.               | <b>03</b>    |
|            | (b) Discuss Smart Farming concept using IoT.                             | <b>04</b>    |
|            | (c) Discuss in detail Smart Home application of IoT.                     | <b>07</b>    |
|            | <b>OR</b>                                                                |              |
|            | (c) Discuss in detail Smart Parking application of IoT.                  | <b>07</b>    |
| <b>Q.3</b> | (a) Compare M2M with IoT.                                                | <b>03</b>    |
|            | (b) Discuss GAMBAS adaptive middleware.                                  | <b>04</b>    |
|            | (c) Explain challenges of the Internet of Things.                        | <b>07</b>    |
|            | <b>OR</b>                                                                |              |
| <b>Q.3</b> | (a) Explain Brownfield IoT Application.                                  | <b>03</b>    |
|            | (b) What the shopping basket can tell: IoT for retailing industry?       | <b>04</b>    |
|            | (c) Explain ETSI M2M high-level architecture.                            | <b>07</b>    |
| <b>Q.4</b> | (a) What is IoT Domain Model?                                            | <b>03</b>    |
|            | (b) Explain M2M Value Chains.                                            | <b>04</b>    |
|            | (c) Discuss IOT domain model notation and semantics.                     | <b>07</b>    |
|            | <b>OR</b>                                                                |              |
| <b>Q.4</b> | (a) Explain strategic business aspects.                                  | <b>03</b>    |
|            | (b) Explain IoT functional model.                                        | <b>04</b>    |
|            | (c) Explain in brief future factory concepts.                            | <b>07</b>    |
| <b>Q.5</b> | (a) Explain contributions from FP7 Projects.                             | <b>03</b>    |
|            | (b) Explain four Aspects in one's business to master IoT.                | <b>04</b>    |
|            | (c) Explain e-Health IOT applications.                                   | <b>07</b>    |
|            | <b>OR</b>                                                                |              |
| <b>Q.5</b> | (a) Enlist challenges faced by industry related IoT Applications.        | <b>03</b>    |
|            | (b) Explain IoT for Oil and Gas industry.                                | <b>04</b>    |
|            | (c) Discuss activity chain 05 - governance, privacy and security issues. | <b>07</b>    |

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