

TE Sem VI CMAH (KT) C-Scheme winter 2025  
IOT 11/12/25

Time: 3 hours

Max. Marks: 80

Instructions:

- 1) Attempt any **Four** questions.
- 2) Figures to the right indicate full marks.
- 3) Assume suitable additional data, if necessary and clearly state it.

- Q.1 Solve any **FOUR**.
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|-----|--|---|
| (a) | Discuss all the layers of IOTWF Standardized Architecture. | 5 |
| (b) | Define IoT. List out the different IOT Challenges.         | 5 |
| (c) | Explain Arduino with diagram.                              | 5 |
| (d) | What is smart object?                                      | 5 |
| (e) | Describe Zigbee protocol stack using IEEE 802.15.4         | 5 |
- Q.2 (a) Explain the concept and hierarchy in Edge computing, Fog computing and Cloud computing. 10
- (b) Briefly explain Adapting SCADA for IP. 10
- Q.3 (a) Write short note on- 1) Air pollution monitoring system using IoT 10  
2)IoT applications in Smart city
- (b) Describe data vs network analytics for an IoT network. 10
- Q.4 (a) What are the basic components of IOT system? Explain the types of Actuators used in IoT applications. 10
- (b) Explain enabling IoT technologies in detail. 10
- Q.5 (a) Describe various health & lifestyle domain specific IOT. 10
- (b) Explain in detail Gateways and Backhaul Sublayer in Core IoT Functional Stack. 10
- Q.6 (a) Discuss Generic Web based protocols. 10
- (b) What are IOT software platform? Explain any 4 IOT software platforms. 10