SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
Accredited by NAAC-UGC with 'A++' Grade (Cycle III) &
Accredited by NBA (B.E - CSE, EEE, ECE, Mech & B.Tech.IT)

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

QUESTION BANK

19EEE308 - SMART GRID

UNIT II - SMART GRID TECHNOLOGIES

Part A (2 Marks)

1. What is real-time pricing in Smart Grids?
2. Define Smart Appliances.
3. What are Smart Meters?
4. What is the role of Advanced Metering Infrastructure (AMI) in Smart Grids?
5. Define Geographic Information System (GIS) in Smart Grid.
6. What is the function of Intelligent Electronic Devices (IED)?
7. How do Plug-in Hybrid Electric Vehicles (PHEV) contribute to Smart Grids?
8. What are the benefits of Demand Response?
9. What is the significance of Wide Area Measurement Systems (WAMS)?
10. What is meant by automation in the context of Smart Grid Technologies?
11. Define Home Area Network (HAN) in Smart Grid.
12. How does ICT facilitate Smart Grid technologies?
13. Mention two communication technologies used in Smart Grids.
14. What is the role of Geographic Information System (GIS) in Smart Grids?
15. Define cybersecurity in the context of Smart Grids.
16. What is the importance of energy storage in Smart Grids?
17. Explain the concept of an automated meter reading system.
18. How do Smart Sensors assist in power distribution?
19. What are the advantages of Smart Grid Technologies over traditional power grids?
20. Define the function of Phasor Measurement Units (PMUs) in Smart Grid.

Part B (16 Marks)

1. Explain the various Smart Grid technologies with their applications.
2. Discuss in detail the role of Smart Meters and real-time pricing in Smart Grids.
3. Explain the functionalities of Advanced Metering Infrastructure (AMI) and its impact on Smart Grids.
4. Elaborate on Geographic Information System (GIS) and its significance in Smart Grids.
5. Discuss the role of Intelligent Electronic Devices (IED) and their applications in Smart Grids.
6. Explain the function and importance of Wide Area Measurement Systems (WAMS).

7. How do Plug-in Hybrid Electric Vehicles (PHEVs) contribute to Smart Grid enhancement?
8. Describe various communication technologies used in Smart Grids.
9. Discuss the role of cybersecurity in Smart Grid infrastructure.
10. Explain the applications and benefits of automation in Smart Grids.