



**PART – B: (Short Answer Questions)****(2 x 10 = 20 Marks)**Q.2. Answer ALL questions

	[CO#]	[PO#]
a. Define Smart Grid?	CO 1	PO 1
b. Write any two functions of Smart grid?	CO 1	PO 1
c. Enumerate any two advantages of Smart Grid?	CO 1	PO 2
d. How Distributed generation plays a role in smart grid?	CO 1	PO 2
e. Explain about WAN and HAN?	CO 2	PO 2
f. Explain any two benefits of Wide Area measurement system?	CO 2	PO 3
g. Explain about Smart Appliances?	CO 2	PO 3
h. Describe any main two features of Automatic Meter reading?	CO 3	PO 3
i. Write the advantages of the variable speed WECS with respect to the constant speed WECS?	CO 3	PO 3
j. Explain about Fuel Cell-Based Hydrogen Electricity (FCHE) ?	CO 4	PO 3

**PART – C: (Long Answer Questions)****(10 x 4 = 40 Marks)**Answer ALL questions

	Marks	[CO#]	[PO#]
3.a Explain the main differences between Conventional grid and Smart Grid (OR)	10	CO 1	PO 1
b. Describe the overall Functions of Smart Grid:	5	CO 1	PO 1
c. Explain the need of the Smart Grid along with features	5	CO 1	PO 2
4.a Explain the Communication Technologies of Smart Grid in terms of LAN, HAN and WAN (OR)	10	CO 2	PO 2
b Explain about the features Wide Area Measurement System along with its benefits	10	CO 2	PO 2
5. a. Write short notes on i) Smart appliances ii) smart meters (OR)	10	CO 3	PO 2
b. Explain about Outage Management System (OMS) along with its main functions	5	CO 3	PO 3
c. Explain about Plug in Hybrid Electric Vehicles (PHEV) and the types of PHEVs.	5	CO 3	PO 3
6. a. Explain the concept of Variable speed wind generators	5	CO 4	PO 3
b. Write short notes on i) fuel cells ii) Micro turbines (OR)	5	CO 4	PO 3
c. Explain the Advantages and disadvantages of Distributed Generation	10	CO 4	PO 3

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