MASTER OF TECHNOLOGY (ELECTRICAL - POWER SYSTEM) (CBCS - 2015 COURSE)

M. Tech. (Electrical-Power System) Sem-IV :SUMMER- 2022

SUBJECT : SELF-STUDY PAPER-II:SMART GRID - AUTOMATION SYSTEM FOR STATE TRANSMISSION UTILITY

Day : Wednesday
Date : 15-06-2022

S-14547-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Answer to both the sections should be written in the **SEPARATE** answer books.

SECTION-I

Q.1 Explain the concept of Smart Grid. Compare between Conventional & Smart Grid. **(10)**

OR

Q.1 Describe in detail international polices in Smart Grid applications. **(10)**

Q.2 Write short note on following: **(10)**
i) Smart Appliances ii) Smart Sensors

OR

Q.2 Describe plug in Hybrid Electric Vehicles (PHEV). Explain Home & Building Automation. **(10)**

Q.3 Explain in detail Intelligent Electronic Devices (IED). **(10)**

OR

Q.3 Explain Geographic Information System (GIS) & its uses. **(10)**

SECTION-II

Q.4 Describe in detail Plastic & Organic Solar Cells. **(10)**

OR

Q.4 Explain in detail Captive Power Plants. **(10)**

Q.5 Describe in detail Power Quality issues in Indian power sector. **(10)**

OR

Q.5 Explain in detail power quality conditioners for Smart Grid. **(10)**

Q.6 Write short notes on the following: **(10)**
i) Wi- Fi ii) Wide area network (WAN)

OR

Q.6 Write short note on broad band power line & IP based protocols. **(10)**

* * * * *