Exam -1

Are there any SGs? Where are SG deployed?
Ans:

Is Microgrid also a SmartGrid?
Ans:

What are flexible loads and fixed loads?
Ans:
Flexible Loads: It is the situation where the shifting of energy takes place to reduce the demand during the peak times and can achieve significant cost savings.
Example: Assume a situation where the electric cars are parked in a building. As the cars in the parking lot are not in use we can supply the energy stored in the cars to the building inorder to reduce the load demand of the city and when the demand is low the cars can be recharged.

Fixed Loads: It is the situation opposite to Flexible loads where there is no exchange of energy between any two components. It is the situation of the present scenario. This kind of situation doesn't help to lower the load demand during the peak times.

Flexible loads is one of the implementations of the smart grid.

Is SG economically viable for Domestic Consumers?
Ans: Yes, After installation of the Smart Grid It will be very useful for Domestic Consumers . We get track of the usage of electricity and can plan the usage accordingly. Efficient usage of electricity is done. All the household appliances such as fans,lights,etc.. will be fully automatic.

Who will implement SG in India and around the world?
Ans: Engineers PPP mode.

How smart grids are used in various sectors? For example Agriculture?
Ans:

- The Smart Home
- Renewable Energy
- Consumer Engagement
- Operation Centers
- Distribution Intelligence
- Plug-In Electric Vehicles

What are the conditions required for a grid to be called smart?
Ans: The Grid is called Smart Grid when the electricity is used in the most efficient way and also most of the problems related to electricity are solved without much involvement of humans.
Typically a Smart Grid consists of:
1. Information Processing Layer.
2. Communication Layer.
3. Physical layer.

Information Processing Layer: This layer involves the Software development of the information.
Communication Layer:It is used to communicate between Communication layer and Physical Layer.

Physical layer: This layer mostly consists of circuits with sensors. Sensors are used to convey the message to the communication layer whenever there is some error in the circuit.

How far / How can we utilize the existing system to make it smart? Explain with examples?
Ans:

Explain some initiatives taken in other countries outside India in the direction of Smart Grids
Ans:

With what frequency do the consumers in India get data about consumption? Is there any benefit by increasing the frequency of information? Explain?
Ans: