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UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination, December, 2021

Program: MBA Power Management **Semester: 1st**
Subject/Course: Energy Storage and E Vehicle Management **Max. Marks: 100**
Course Code: PIPM8014 **Duration: 3 Hours**

IMPORTANT INSTRUCTIONS

Q.No	Section A (Type the answers in the text box)	Marks	Cos
1	What are the key areas for Energy Storage System applications?	2	CO1
2	Which of the following is not a renewable source of energy? a) Biomass Based Cogeneration b) Solar Photovoltaic c) Geothermal Energy d) Nuclear Energy	2	CO2
3	Arrange Nuclear Power Generation, Renewable Energy Generation, Hydro Energy Generation and Thermal Energy Generation in the ascending order of Installed Generation capacity in India.	2	CO1
4	Mention one advantage and one disadvantage of Battery Swapping Sites as a method of EV Charging Infrastructure.	2	CO1
5	With reference to Public Charging infrastructure, who will be the Owner and Operator of the Public Charging Infrastructure?	2	CO2
6	What is the role and responsibility of the Ministry of Housing and Urban Affairs as a Government Stakeholder in EV Charging Infrastructure?	2	CO1
7	Which Indian agency has been designated as the Central Nodal Agency for the rollout of EV public charging infrastructure implementation across the country?	2	CO1
8	What are the three main responsibilities of a Charge Point Operator?	2	CO2
9	What are the key principles for a location planning framework of Public Charging Infrastructure?	2	CO1
10	“Energy storage systems be integrated with public charging infrastructure to provide the consumers with a seamless EV charging experience.” Mention if the statement is True or False.	2	CO2

Q.No	Section B (Scan and Upload)	Marks	Cos
11	Analyze the merits of installing energy storage systems as part of power distribution business.	5	CO2
12	Discuss the utility of Energy Storage Systems in a Smart Grid installation.	5	CO3
13	Provide a comparative analysis of Electric Vehicles with the Conventional Vehicles.	5	CO3
14	Analyze the role of a Discom is ensuring availability of EV Charging infrastructure.	5	CO2
Q.No	**Section C** **(Scan and Upload)**	**Marks**	**Cos**
15	In your opinion, what are the core areas that require immediate attention to make India an EV Nation by the year 2030?	10	CO3
16	Write a note on the regulatory changes required for implementation of EV Charging Infrastructure.	10	CO3
17	Energy Storage Systems can fill in the gaps that arise between demand and supply of electricity. Argue for or against the statement.	10	CO4
Q.No	**Section D** **(Scan and Upload)**	**Marks**	**Cos**
18	In your opinion, what should be the strategy and process for installation of charging infrastructure in India. The process flow should be discussed in detail.	15	CO3
19	If you have been given the charge for identification of industries and sectors where energy storage systems can be installed, which sectors and industries will you select and why. Discuss in detail.	15	CO4