

<b>DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE</b> <b>Regular End Semester Examination – Summer 2023</b> <b>Course: T.Y.B.Tech. Branch :Electrical Engineering &amp; ALLIED Semester: VI</b> <b>Subject Code &amp; Name: BTEEPE604B/BTEIPE604C Smart Grid Technology</b> <b>Max Marks: 60 Date: 19-07-2023 Duration: 3 Hr.</b>			
<b>Instructions to the Students:</b> 1. All the questions are compulsory. 2. The level of questions/expected answer as per OBE or the Course Outcome(CO)on which the question is based is mentioned in ( ) in front of the question. 3. Illustrate your answer with neat sketch, diagram etc. wherever necessary 4. Assume suitable data wherever necessary and mention it clearly.			
		CO	Marks
<b>Q. 1</b>	<b>Solve any two of the following.</b>		<b>12</b>
A)	Write a short note on smart meter.	CO1	06
B)	Explain AMR in detail.	CO1	06
C)	Explain Indian Smart Grid Challenges.	CO1	06
<b>Q.2</b>	<b>Solve any two of the following.</b>		<b>12</b>
A)	State and explain components of smart grid.	CO1	06
B)	Explain Environmental impact on electric vehicle.	CO1	06
C)	Write a short note on transmission automation and distribution automation.	CO1	06
<b>Q. 3</b>	<b>Solve any two of the following.</b>		<b>12</b>
A)	Explain operating modes of micro grid with neat diagrams.	CO2	06
B)	Draw and explain block diagram of EV.	CO2	06
C)	Differentiate between series and parallel hybrid vehicles.	CO2	06
<b>Q.4</b>	<b>Solve any two of the following.</b>		<b>12</b>
A)	Explain Synchro Phasor Measurement Units (PMUs) in detail.	CO3	06
B)	Write a short note on zigbee.	CO3	06
C)	Explain two-way Digital Communications Paradigm.	CO3	06
<b>Q. 5</b>	<b>Solve any two of the following.</b>		<b>12</b>
A)	Explain Voltage Control and reactive power control in Micro Grid System.	CO3	06
B)	Explain Cyber Security Challenges in Smart Grid	CO3	06
C)	Explain Load Frequency Control (LFC) in Micro Grid System.	CO3	06
*** End ***			