

Hall Ticket Number :

R-19

Code: 19B23DT

M.Tech. III Semester Regular & Supplementary Examinations April 2022

Energy Storage Technologies

(Electrical Power Systems)

Max. Marks: 60

Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 12 = 60 Marks)

	Marks	CO	Blooms Level
UNIT-I			
1. Explain about the Fly Wheel energy relations and system components with neat diagram? Write the advantages of Flywheel over Battery system.	12M	CO1	L2
OR			
2. a) Discuss briefly about compressed Air energy storage system	6M	CO1	L3
b) Explain briefly about capacitor bank storage system	6M	CO1	L2
UNIT-II			
3. a) Describe the History and general battery concepts.	6M	CO2	L3
b) Explain in brief about primary and secondary battery systems	6M	CO2	L2
OR			
4. a) Explain about Nickel – Metal Hydride and Nickel hydrogen battery system	6M	CO2	L2
b) Write Comparison between the battery and cell	6M	CO2	L3
UNIT-III			
5. a) Explain about starter traction, stationary and mobile systems	6M	CO3	L2
b) Discuss in brief about battery management system	6M	CO3	L2
OR			
6. a) Explain and draw the performance characteristics of energy storage system	6M	CO3	L2
b) Write the General Equivalent Electrical Circuit of the energy storage system	6M	CO3	L2
UNIT-IV			
7. Draw and explain Sealed-Lead cells and Batteries charging and discharging characteristics and its importance.	12M	CO3	L2
OR			
8. a) Discuss in brief about constant voltage and current charging	6M	CO3	L3
b) Explain in brief about Storage, Testing and Safety of the battery systems.	6M	CO3	L2
UNIT-V			
9. a) Explain about PV module assistance and storage bank reconfiguration.	6M	CO4	L2
b) Describe the Overall cost analysis of the storage systems	6M	CO4	L3
OR			
10. a) Explain steady state stability analysis of with storage systems.	6M	CO4	L2
b) Explain Battery rating calculations for standalone system.	6M	CO4	L2

END

Hall Ticket Number :

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R-19

Code: 19BE3AT

M.Tech. III Semester Regular & Supplementary Examinations April 2022

Cost Management of Engineering Projects

(Common to All Branches)

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60 Marks)

Marks CO Blooms Level

UNIT-I

1. Define cost management. Discuss its objectives

12M CO3 L1

OR

2. Outline strategic management and its process

12M CO1 L4

UNIT-II

3. Discuss various costs involved in managerial decision making

12M CO3 L2

OR

4. What is differential cost analysis? Compare between differential cost and marginal cost analysis

12M CO2 L5

UNIT-III

5. Describe the requirements for the application of PERT technique and practical limitations of using PERT.

12M CO1 L2

OR

6. Discuss various types of projects and different stages of project execution.

12M CO3 L2

UNIT-IV

7. What is marginal costing? Demonstrate its various applications

12M CO2 L3

OR

8. Demonstrate Activity Based Costing with the important steps involved in it.

12M CO1 L3

UNIT-V

9. Discuss the simplex method where it indicates existence of multiple optimal, unbounded and infeasible solution of an LPP

12M CO1 L2

OR

10. Can degeneracy occur in a transportation problem? Justify your answer

12M CO3 L5
