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R-19

Code: 19BE3AT

M.Tech. III Semester Regular Examinations March 2021

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. Categorize different methods of costing. Explain in brief with examples of industries using a specific method	12M	CO3	L4
OR			
2. What is strategic cost management? Discuss its components and stages	12M	CO2	L2
UNIT-II			
3. Illustrate different methods of inventory valuation with their merits and demerits	12M	CO1	L3
OR			
4. What are the elements of cost? Explain in brief.	12M	CO2	L1
UNIT-III			
5. Discuss applications of PERT/CPM in project planning and explain the difference between them.	12M	CO3	L2
OR			
6. Describe the role of project contracts and project control techniques.	12M	CO1	L2
UNIT-IV			
7. Outline standard costing with its objectives, merits and demerits	12M	CO2	L4
OR			
8. What is budgetary control? Discuss essential elements of budgetary control	12M	CO1	L1
UNIT-V			
9. Demonstrate transportation problem with some examples	12M	CO3	L3
OR			
10. What is the travelling salesman problem? Which situations can be treated as the travelling salesman problem? How does its solution differ from the solution of the assignment problem?	12M	CO2	L4

Code: 19B23BT

M.Tech. III Semester Regular Examinations March 2021

Flexible AC Transmission Systems

(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)

UNIT-I

- | | Marks | CO | Blooms Level |
|--|-------|----|--------------|
| 1. a) What are FACTS controllers? How power flow can be controlled in transmission lines using FACTS? List different types of FACTS controllers. | 6M | 1 | L2 |
| b) Name and explain different types of stability issues that limit transmission capability. | 6M | 1 | L3 |

OR

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|--|----|---|----|
| 2. a) Distinguish between shunt connected controllers with series connected controllers. | 6M | 1 | L2 |
| b) What do you mean by loading capability and explain different kinds of limitations? | 6M | 1 | L2 |

UNIT-II

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|---|----|---|----|
| 3. a) What is the basic concept of current-source converter? Explain operation of 3- CSC. | 6M | 2 | L3 |
| b) Explain the principle of a voltage sourced converter. Why voltage sourced converters are preferred than current sourced converters for FACTS application | 6M | 2 | L3 |

OR

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| 4. Explain the operation of three phase full wave bridge type voltage source converter with a neat circuit along with the necessary waveforms. | 12M | 2 | L4 |
|--|-----|---|----|

UNIT-III

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| 5. a) Explain how midpoint voltage regulation of a transmission line increases the power transfer capacity of the lines. Also explain how it provides power oscillation damping. | 6M | 2 | L3 |
| b) Explain how midpoint voltage regulation for a transmission line increases the transient stability margin. | 6M | 2 | L2 |

OR

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| 6. a) What is the need for reactive power compensation in transmission systems? | 6M | 2 | L1 |
| b) Discuss how to prevent voltage instability at the end of line by using shunt compensation | 6M | 2 | L2 |

UNIT-IV

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|--|----|---|----|
| 7. a) Explain the voltage stability enhancement and power oscillation damping with series capacitive compensation. | 6M | 2 | L2 |
| b) Discuss the working of Thyristor Switched Series Capacitor (TSSC). | 6M | 3 | L1 |

OR

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|---|----|---|----|
| 8. a) What is meant by variable impedance type series compensator? Explain the operation of Thyristor Controlled Series Capacitor (GCSC). | 6M | 3 | L1 |
| b) Explain the basic control schemes of TCSC and TSSC. | 6M | 3 | L3 |

UNIT-V

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|--|----|---|----|
| 9. a) Briefly describe the way by which the transient stability is enhanced with static VAR compensator. | 6M | 3 | L2 |
| b) Explain the operation of STATCOM with an aid of block diagram. | 6M | 4 | L3 |

OR

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|---|----|---|----|
| 10. a) What is a STATCOM? Discuss its construction and working. | 6M | 4 | L2 |
| b) Compare between STATCOM and SVC in terms of operational and performance characteristics along with application benefits. | 6M | 4 | L3 |
