GREEN COMPUTING

Course code: 18IS7DEGCT **Credits: 03**
L: P: T: S: 3: 0: 0: 0 **CIE Marks: 50**
Exam Hours: 03 **SEE Marks: 50**
Total Hours: 40

Course Outcomes: After completion of the course, the graduates will be able to

CO1	Able to understand the importance of Green Computing
CO2	Understand the Significance Green Computing Framework
CO3	Analyze the impact of Green Computing In Industries
CO4	Understand the challenges related to Green Computing
CO5	Significance of Green Computing in Socio- Cultural Environment
CO6	Understand the importance of Green Computing through Case Studies

Mapping of Course outcomes to Program outcomes:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	-	1	-	1	-	-	-	1	-	1	-	-	-
CO2	2	2	-	2	-	-	-	-	-	2	-	2	-	-	-
CO3	3	3	-	1	-	-	-	-	-	1	-	1	-	-	-
CO4	2	2	-	1	1	-	-	-	-	2	-	1	-	-	-
CO5	2	3	-	2	1	-	-	-	-	1	-	2	-	-	-
CO6	3	3	-	1	-	-	-	-	-	1	-	1	-	-	-

Unit	Course Content	Hours	Cos
1	**FUNDAMENTALS** Green IT Fundamentals: Business, IT, and the Environment –Green computing: carbon foot print, scoop on power – Green IT Strategies: Drivers, Dimensions, and Goals –Environmentally Responsible Business: Policies, Practices ,and Metrics.	**08**	**CO1& CO2**

2	Green Assets: Buildings, Data Centers, Networks, and Devices – Green Business Process Management: Modeling, Optimization, and Collaboration	**08**	**CO3& CO4**
3	Green Enterprise Architecture: Environmental Intelligence – Green Supply Chains – Green Information Systems: Design and Development Models.	**08**	**CO3& CO4**
4	Socio-cultural aspects of Green IT :Green Enterprise Transformation Roadmap- Green Compliance: Protocols, Standards, and Audits – Emergent Carbon Issues: Technologies and Future.	**08**	**CO4& CO6**
5	The Environmentally Responsible Business Strategies (ERBS) – Case Study Scenarios for Trial Runs – Case Studies – Applying Green IT Strategies and Applications toHome, Hospital, Packaging Industry and Telecom Sector.	**08**	**CO5 &CO6**

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TEXT BOOKS:

1. Bhuvan Unhelkar, ―Green IT Strategies and Applications-Using Environmental Intelligence, CRC Press, June 2014.

REFERENCE BOOKS:

1. Alin Gales, Michael Schaefer, Mike Ebbers, ―Green Data Center: steps for the Journey, Shroff/IBM rebook, 2011.
2. John Lamb, ―The Greening of IT, Pearson Education, 2009.
3. Jason Harris, ―Green Computing and Green IT- Best Practices on regulations & industry,
Lulu.com, 2008
4. Carl speshocky, ―Empowering Green Initiatives with IT, John Wiley & Sons, 2010.
5. Wu Chun Feng (editor), ―Green computing: Large Scale energy efficiency, CRC Press