Program:	**F.Y.B.Sc IT**	**Semester:**	**I**	**Program Code:**	**UGIT01**
Course:	**Green Technologies**			**Course Code:**	**NUES101**

Duration: 1 Hour **Examination Pattern:** NEP-Autonomous - External. **Max. Marks:** 30

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat diagrams wherever necessary.
4. CO (Course Outcome), KL (Knowledge Level).

Examination:

REGULAR

Q. 1		**Attempt any THREE of the following.**	[15]	CO's	KL's
	(a)	Define Green IT and explain its importance in achieving environmental sustainability.		CO1	L1
	(b)	Explain how processor power states and energy-saving software techniques can reduce the power consumption of computing devices.		CO2	L2
	(c)	A company plans to replace 500 desktop computers. Apply the principles of reuse, recycling, and safe disposal to develop an environmentally responsible device life-cycle plan.		CO2	L3
	(d)	Compare Green IT as a burden with Green IT as an opportunity from an enterprise perspective.		CO3	L4
	(e)	Evaluate the importance of sustainability attributes and metrics in sustainable software development. Give suitable examples of metrics.		CO2	L5
Q. 2		**Attempt any THREE of the following.**	[15]	CO's	KL's
	(a)	Explain the relationship between IT infrastructure and facility infrastructure in achieving data-centre energy efficiency.		CO1	L2
	(b)	Apply suitable energy-management techniques for hard disks in a data-storage system to reduce unnecessary power consumption.		CO2	L3
	(c)	Explain the objectives of Green Networking and discuss the role of energy-efficient network protocols in reducing network power consumption.		CO1	L2
	(d)	Evaluate the major business drivers and organizational considerations that influence the development of an enterprise Green IT strategy.		CO3	L5
	(e)	Design an enterprise-level Green IT strategy covering data centres, storage, networking, hardware		CO3	L6

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