Name: Enrolment No:	UPES UNIVERSITY OF TOMORROW

UPES
End Semester Examination, May 2025

Course: Sustainable Supply chain management	**Semester: IV**
Program: MBA(Operations Management)	**Time : 03 hrs.**
Course Code: LSCM8031	**Max. Marks: 100**

Instructions:

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SECTION A
10Qx2M=20Marks

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S. No.		Marks	CO
Q 1	Write full forms (1.1 to 1.5) and choose the correct answer (1.6 to 1.10)		
1.1	ESG	2	CO1
1.2	TBL	2	CO1
1.3	CBA	2	CO1
1.4	LCA	2	CO1
1.5	GHG	2	CO1
1.6	What is sometimes referred to as the fourth "R" of sustainability? A) reclaim B) recover C) renew D) reproduce	2	CO1
1.7	The carbon footprint is defined as a measure of total greenhouse gas emissions caused directly or indirectly by what four things? A) a factory, an office building, a warehouse, or a truck B) an organization, a product, an event, or a person C) an organization, a product, an animal, or a person D) an organization, a government, a product, or a person	2	CO1
1.8	Companies can improve the triple bottom line with sustainability by minimizing what four things? A) raw material, energy, water, and waste B) raw material, transport, manufacture, and disposal C) people, planet, profit, and pollution D) pollution, carbon footprint, profit, and people	2	CO1
1.9	What refers to meeting the needs of the present without compromising the ability of future generations to meet their needs? A) corporate social responsibility B) economic sustainability	2	CO1

	C) carbon footprint D) sustainability		
1.10	Corporate social responsibility involves managerial decision making that considers what three impacts? A) environmental, legal, and financial B) environmental, legal, and societal C) educational, environmental, and societal D) environmental, societal, and financial	**2**	**CO1**

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SECTION B
4Qx5M= 20 Marks

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	All Questions Compulsory. (not more than 1 page)		
Q2	Discuss the 3 R s.	**5**	**CO2**
Q3	Discuss Circular Economy in Supply Chains	**5**	**CO2**
Q4	Define Reverse Logistics and its importance.	**5**	**CO2**
Q5	How does stakeholder engagement and cross-sector collaboration contribute to building a more sustainable supply chain?	**5**	**CO2**

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SECTION-C
3Qx10M=30 Marks

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	All Questions Compulsory		
Q6	Explain how Digital Twin Technology enhances sustainability in supply chains. Discuss with examples how real-time simulation and predictive analytics contribute to reducing waste, emissions, and energy consumption.	**10**	**CO3**
Q7	Discuss the concept of Closed-Loop Supply Chains (CLSC) and analyze how they contribute to environmental sustainability. Or How does the return, reuse, and recycling of products and materials reduce environmental impact and support circular economy principles?	**10**	**CO3**
Q8	Explain the role of reverse logistics in promoting sustainability within supply chains.	**10**	**CO3**

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SECTION-D
2Qx15M= 30 Marks

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Case study: Unilever's Procurement for a Sustainable Supply Chain Unilever, a global leader in consumer goods, has set ambitious sustainability goals across its supply chain. One of its landmark initiatives is the Unilever Sustainable Living Plan (USLP), launched to decouple the company's growth from environmental impact and increase its positive social contribution. A core pillar of this initiative is the company's commitment to sourcing 100% of its agricultural raw materials sustainably. To guide this, Unilever developed the Unilever Sustainable Agriculture Code (USAC)—a comprehensive framework focused on improving soil health, water		**CO4**

efficiency, biodiversity preservation, reducing GHG emissions, and ensuring social equity for farmers and workers.

Unilever collaborates closely with farmers, certification bodies (like Rainforest Alliance, Fairtrade, and RSPO for palm oil), and NGOs to implement these standards. The company also invests in training programs for smallholder farmers, especially in countries like Kenya and India, helping them increase productivity while minimizing environmental impact. These efforts have led to better crop quality, higher incomes, and stronger supplier relationships.

In recent years, Unilever has adopted digital technologies such as blockchain for traceability, and remote sensing tools to monitor environmental impact. These innovations not only increase transparency and accountability in procurement but also help the company manage risk and maintain consumer trust.

Unilever's success in sustainable procurement has positioned it as a global benchmark for sustainable supply chain management, influencing competitors and suppliers alike to embed sustainability in core business functions.

Q9	Analyze how the Unilever Sustainable Agriculture Code (USAC) supports the company's goals for a sustainable supply chain. Provide examples to illustrate the integration of environmental and social factors.	**15**	**CO4**
Q10	Evaluate how digital technologies have transformed Unilever's approach to supply chain transparency and risk management. What challenges might the company face in scaling these technologies globally? Or Discuss the role of supplier collaboration and third-party certifications in helping Unilever achieve sustainable procurement. How do these partnerships enhance credibility and effectiveness?	**15**	**CO4**