Name:

Enrolment No:

UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2018

Course: Introduction to Logistics **Semester:** I

Program: BBA (Logistics Management) CC: LSCM 1001

Time: 03 Hrs. **Max. Marks:** 100

Instructions: Answer all parts of a question in one place. Attend all sections.

SECTION A

S. No.		Marks	CO
Q 1	Answer all questions of this section.	20	
(i)	List the six supply chain drivers.	3	5
(ii)	According to Martin Christopher, what are the logistics functions that make up the LOGISTICS MIX?	2	1
(iii)	Write a mathematical expression for 'supply chain surplus'.	2	1
(iv)	Customer order cycle connects two interfaces of the supply chain. What are those?	2	2
(v)	Procurement cycle connects two interfaces of the supply chain. What are those?	2	2
(vi)	What is supply chain mapping? [Answer in 2-3 lines only.]	2	3
(vii)	List at least three factors of supply chain that affect the customer satisfaction.	3	3
(viii)	Like manufacturing provides form utility, marketing provides possession utility, logistics provides _____. [Fill in the blank.]	2	1
(ix)	NVOCC stands for _____. [Fill in the blank.]	1	3
(x)	MHES stands for _____. [Fill in the blank.]	1	3

SECTION B

Q 2	Answer any four questions in short.	20	
(i)	Write short notes on "packaging materials".	5	3
(ii)	List and explain the functions of warehouses.	5	3
(iii)	What are the various types of transportation networks?	5	3
(iv)	What is the importance of information handling for a logistics manager of a successful supply chain?	5	4
(v)	What are the principles of material handling	5	5
(vi)	Write the similarities and dissimilarities in the operations of the following outbound logistics channel members - Wholesalers; Retailers; and Van Dealers.	5	2

SECTION-C

Q 3	Answers with description and/or analysis, any three questions	30	
(i)	Explain how the products and the related information and flows across a supply chain. Indicate there in the role of logistics management with reference to the channel structure.	10	4, 5
(ii)	What are types of warehouses? Write short notes on each type.	10	3
(iii)	Explain the factors that determine a particular mode of transportation to be selected.	10	3
(iv)	Write short notes on following technologies practiced in logistics and supply chain management – a) Transportation System Management (TMS) b) Warehouse Management System (WMS)	10	4, 5
(v)	What are the factors considered and techniques used for selecting a warehouse location?	10	3
SECTION-D			
Q 4	Read the case and answer the question(s) with analytical justification.	30	
	A Case of Dangerous Goods Transportation - Ammonium Nitrate fertilizer by rail, sea and road transport from Finland to Estonia This transport case gives a chain description of ammonium nitrate fertilizer transported by rail, sea and road transport modes from the case company's chemical plant in eastern Finland to a distribution storage in east-ern Estonia. The ammonium nitrate-based fertilizer transported in this case contains less than 70% ammonium nitrate and less than 0.4% total combustible/organic material calculated as carbon or with less than 45% ammonium nitrate and unrestricted combustible material. This fertilizers is dangerous according to IMDG Code, but classified as harmless by ADR and RID. The case company is a supplier of agricultural fertilizer products. It operates in several European countries. The transported substance in this case is a class 9 ammonium nitrate fertilizer transported in big bags. The transport route begins from the case company's production facilities in eastern Finland and ends at the consignee in Estonia. The cargo is first transported to the case company's own south-western port in Finland by rail. The cargo is then unloaded at a warehouse, where it waits for the ship to arrive. After that, it is put on a dry bulk ship sailing from Finland to a port in north Estonia, where it is transported by lorry to a distribution storage in eastern Estonia. The customer picks up the cargo from there itself. The distances en-route are: from the production facilities in eastern Finland to the port in south-western Finland approximately 600 km, from the port in Finland to the port in Estonia 280 nautical miles (550 km), and from port to the warehouse in eastern Estonia approximately 200 km. The estimation of dangerous goods annually transported on the route is 4,000 tons. The problem in this transport chain is differences in regulation. The transported substance is dangerous according to the IMDG Code, but not according to ADR and RID. This presents a problem in the labelling of the big bag. Normally the labels are		1-5

	firmly printed on the bag, but then a problem may occur with the traffic police, who may think that the cargo is dangerous, because of the DG labels on it. QUESTION Explain, how the logistics of dangerous goods managed in this case in terms of: a) Cross-functional drivers b) Logistics drivers	 15 15	

[Source (Adapted from): Multiple Case Study of Transport Chains of Dangerous Goods in the Baltic Sea Region Lauri (Ojala et al. 2014), https://www.researchgate.net/publication/228411056]