Name:	
Enrolment No:	**UPES**

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Course: Logistics Planning & Strategy (CODE: LSCM 3002) **Semester: V**
Programme: Bachelor of Business Administration (LM) **Time: 03 hrs.**
Max. Marks: 100

SECTION A
Instructions: Answer all the questions. Select the most appropriate answer. **(1 mark x 20=20 marks)**

S. No.		Marks	CO
Q 1	Opportunity costs are part of a) Ordering costs b) Inventory carrying costs c) Material Costs d) None of the above	1	CO1
Q2	Fixed costs which do not vary with the size of the order are -- a) Ordering costs b) Inventory carrying costs c) Material Costs d) None of the above	1	CO1
Q3	For items with high stockout costs, firms work with a) High service level. b) Low service level. c) Same service level as for items with low stockout costs d) None of the above	1	CO1
Q4	The best way to reduce the cycle inventory is a) Increasing the inventory carrying costs b) Decreasing the demand c) Increasing the holding rate d) Decreasing the ordering costs	1	CO3
Q5	For products with high value density, _____ mode of transportation are preferred a) Either slow or fast b) Fast c) Slow d) None of the above	1	CO3
Q6	Inventory costs in general _____ with aggregation	1	CO3

	a) Decreases b) Increases c) Remain constant d) None of the above		

Q7	Type of inventory classification which is popular in maintenance management
	    a) FSN
	    b) ABC
	    c) VED
	    d) None of the above
		1	**CO2**

Q8	Safety inventory requirement increases with increase in
	
	    a) demand uncertainty
	    b) supply uncertainly
	    c) lead time
	    d) All of the above
		1	**CO3**

Q9	In _____, importers can deposit goods deferring payment of duty till the goods are actually required.
	
	    a) Any Public warehouse
	    b) Any private warehouse
	    c) Free Trade warehouses
	    d) Custom bonded warehouses
		1	**CO1**

Q10	Flush docks are docks which
	
	    a) Allow trucks to back right up to the warehouse wall.
	    b) Are docks separated by an intermediate platform
	    c) Provide Independent loading and unloading areas
	    d) None of the above
		1	**CO3**

Q11	The use of stacking should be limited to -
	
	    a) Loads with great internal strength,
	    b) Loads with bulky packaging.
	    c) Depends on shape and size of the load
	    d) None of the above
		1	**CO3**

Q12	Gravity flow" racks utilizes _____ inventory management
	
	    a) First-In First-Out (FIFO)
	    b) Last-In First-Out (LIFO)
	    c) Either FIFO or LIFO
	    d) None of the above
		1	**CO3**

Q13	_____is a load securement method using wood/timber or metal bars to reduce or prevent front to rear shifting of freight/cargo a) Dunnage b) Blocking & Bracing c) Strapping d) Lashing	1	CO3
Q14	Which of the following is not true for Slip sheets: a) It is thinner than pallet b) It is a disposable shipping platform c) Requires special lifting device d) Made up of wood or metal	1	CO3
Q15	Which of the following is not true for a 4PL: a) Provides comprehensive supply chain solution b) Any 3PL can also perform role of a 4 PL c) Are asset free d) Forms collaborative relationships among various logistics service providers	1	CO2
Q16	Higher the demand uncertainty of the product, _____will be the savings in safety stock when moving from decentralisation to centralisation. a) Lower b) Higher c) Can be higher or lower d) None of the above	1	CO3
Q17	DRP allocates inventory from mother warehouse to distribution centres based on- a) Demand Pattern b) Safety stock provision c) Order quantity & reorder Point d) All of the above	1	CO1
Q18	Centralisation of inventory is not beneficial for a) slow moving products b) fast moving products c) products with higher the demand uncertainty d) None of the above	1	CO2
Q19	Kanban is used in – a) Distribution system b) Process logistics	1	CO3

	c) Tracking consignment d) Consolidation of goods		

Q20	Which of the following statement is not true for Vendor-Managed Inventory (VMI)
	    a) Inventory is owned by the customer at the warehouse
	    b) Control of replenishment decisions is with supplier instead of customer
	    c) Inventory is owned by supplier until it is sold by the customer
	    d) Requires that customer share demand information with the supplier.
		1	CO2

SECTION B

Instructions: Attempt any four out of six questions   **(5 marks x 4 = 20 marks)**

Q1	Explain U Flow and Through flow of warehouse design.	5	CO3
Q2	What are value added services. What are the typical value added services provided by logistics service providers.	5	CO2, CO3
Q3	Name different types of containers used for inter modal transportation.	5	CO1, CO3
Q4	Centralisation of inventory leads to decrease in inventory related costs as compared to decentralisation. Why?	5	CO2
Q5	What are the reasons firms outsource logistical services?	5	CO1
Q6	What is bareboat charter in marine transportation?	5	CO1

SECTION-C

Instructions: Attempt three out five questions   **(10 marks x 3 = 30 marks)**

Q1	Discuss different warehousing Strategies.	10	CO2, CO3
Q2	Discuss different criteria on which choice of racking system will depend. Briefly discuss any three types of Racking Systems.	10	CO3
Q3	Discuss advantages and disadvantages of metal, plastic and wooden pallets	10	CO3
Q4	What are the major component of a logistics service contracts.	10	CO1, CO2
Q5	What are the agency functions performed by agents at the port in marine transportation.	10	CO1

SECTION-D

Instructions: **(10 marks x 3 = 30 marks)**

	Home Base, a home improvement company is going to build a new warehouse facility to serve its stores in six North Carolina cities.- Charlottee, Winston-Salem, Greensboro, Durham, Raleigh. Bill Smith is the logistics Manager at Home-Base. In order to select the best site for the new warehouse facility, Bill Smith has collected the location data of the stores as well as annual truckloads supplied to each store. The	30	CO2, CO3

coordinates of these cities (in miles), using Columbia, South Carolina as the origin (0,0) and annual truckloads that supply each city are:

Charlottee	Winston-Salem	Greensboro	Durham	Raleigh
x=15	x=42	x=88	x=125	x=135
y = 85	y = 145	y = 145	y = 140	y = 125
w = 160	w = 90	w = 105	w = 35	w = 60

a) Determine the best site for new warehouse facility using centre-of-gravity technique.

b) Bill Smith is considering two potential sites for building new warehouse facility. The sites and their (x, y) coordinates are: Fayetteville at (145, 72) and Statesville at (10,125). Using load –distance technique, which of these two sites you will suggest to build new warehouse facility.

c) Bill Smith is also planning for the inventory of their best selling product X at the new warehouse facility. The projected annual demand of product X at the new warehouse facility is 12,400 per year. The fixed transportation and handling costs will be $2600 each time shipment of product X is ordered. The inventory carrying cost per unit of product X per year are estimated to be $3.75. What is the optimal order quantity Bill Smith should order on its suppliers. What will be the minimum total annual inventory related costs.