UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Logistics and Supply Chain Management   Semester: III
Programme: BBA DM, BBA FAS
Time: 03 hrs.   Max. Marks: 100
Instructions: As per sections

SECTION A

S. No.	Attempt all questions.	Marks	CO
Q 1	Mark True/False (T/F) for the following	**10**	
a)	A review of inventory at regular intervals such as weekly or monthly is called periodic review	**2**	**CO1**
b)	SoS inventory control system is used to identify criticality of the component	**2**	**CO1**
c)	Cross docking strategy is appropriate for e commerce companies	**2**	**CO2**
d)	Shipper is the party that moves or transports the product	**2**	**CO4**
e)	With pricing, the anticipated risk of finished goods inventory maintenance is reduced considerably	**2**	**CO3**
Q 2	Multiple Choice questions	**10**	
a)	For progressively decreasing weights, the value of smoothing constant should be close to a) 0 b) -1 c) 1 d) none of these	**2**	**CO3**
b)	Inventory in transit after it is dispatched from factory is called a) Decoupling inventory b) Transit inventory c) Pipeline inventory d) Carrying inventory	**2**	**CO1**
c)	Which of the following is not a qualitative forecasting method a) Delphi Technique b) Mean Absolute Deviation c) Customer Surveys d) none of these	**2**	**CO2**
d)	Warehouse strategy used by similar group of companies who are not competitors a) Capacity Switching b) Hub Networking c) Outsourcing d) Cobbling	**2**	**CO3**
e)	What mode of transportation is considered most expensive? a) Water b) Air c) Pipeline d) Road	**2**	**CO1**

	Attempt any four questions. Each question carries 5 marks.	20	
Q3	What do you understand by Supplier hubs? Explain	5	CO1
Q4	What are the various forecasting horizons in Operations Planning?	5	CO1
Q5	What is your learning from the online session on Cold supply chain management?	5	CO4
Q6	What is your learning from the online session on Bullwhip effect?	5	CO3
Q7	What do you understand by containerization?	5	CO2

SECTION-C

	Note: Attempt all questions. Each question carries 10 marks.	30	
Q8	a) What are the assumptions of Basic EOQ model? b) Diagrammatically show the EOQ cost model.	10	CO2
Q9	Explain Point to point network, trans-shipment point, Nodal network and hub and spoke network. Show diagrammatically.	10	CO4
Q10	Explain Hold, Consolidation, Break bulk, Mixing Warehouses. Show diagrammatically.	10	CO1

SECTION-D

	Note: Attempt any three questions. Each question carries 10 marks	30	

Q11	a) Find the forecast for the month of May using exponential smoothing method
	     Demand data
	     Jan 23.3 Feb 27.4 Mar 33.0 Apr 26.5
	     And the January Forecast was: 27
	     Smoothing constant = 0.20
	 b) Find the mean absolute deviation (MAD) if the actual demand for May is 30.0
		10	CO3

Q12	At present a company purchases an item X from outside suppliers. The consumption of this item is 10,000 units/year. The cost of the item is Rs 5 per unit and the ordering cost is estimated to be Rs 100 per order. The cost of carrying inventory is 25% of the cost of item. If the consumption rate is uniform, determine the economic ordered quantity.	10	CO2
Q13	Assume that the company is going to manufacture the item with the equipment that is estimated to produce 100 units per day. The consumption of the item is 10000 units/year. The cost of the unit thus produced is Rs 3.50 per unit. The set-up cost is Rs. 150 per set-up and the inventory carrying charge is 25 %. What is the optimum production lot size(Q*)? Assume 250 working days in the year.	10	CO3

Q14	The following information is known about a group of items. Classify the material in A, B, C categories:
	
	     Model No. Volume Unit Price
	     1 30 10
	     2 280 15
		10	CO4

	3	30	10		
	4	1100	5		
	5	40	5		
	6	2200	10		
	7	150	5		
	8	800	5		
	9	600	15		
	10	80	10		