

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, December 2020

Course : Supply Chain & Logistics for Power Industry
Programme : MBA (LSCM)
Course Code: LSCM 8010

Semester: III
Time: 03 hrs.
Max. Marks: 100

Instructions: 1. All questions are compulsory
2. This question paper has three sections

SECTION A (30 Marks)

1. Each Question will carry 5 Marks
2. Attempt all questions in this section

S. No.		Marks	CO
Q 1	Cycle inventory exists because producing or purchasing in large lots allows a stage of the supply chain to (a) exploit economies of scale and raise cost (b) exploit economies of scale and lower cost. (c) exploit customers and lower cost (d) exploit customers and raise cost	5	CO1
Q 2	When demand is steady, cycle inventory and lot size are related as (a) Cycle Inventory = Lot Size \times 2. (b) Cycle Inventory = Lot Size \times 2. (c) Cycle Inventory = Lot Size / 2. (d) Cycle Inventory = Lot Size = Q	5	CO1
Q 3	The trade-off that a supply chain manager must consider when planning safety inventory is (a) increasing product availability versus increasing inventory holding costs. (b) decreasing product availability versus decreasing inventory holding costs. (c) increasing product availability versus raising the level of safety inventory. (d) decreasing product availability versus decreasing the level of safety inventory	5	CO3
Q 4	Supply chain network design decisions include (a) only the location of manufacturing, storage, or transportation-related facilities. (b) only the allocation of capacity and roles to each facility. (c) both the location of manufacturing, storage, or transportation-related facilities and the allocation of capacity and roles to each facility. (d) neither the location of manufacturing, storage, or transportation-related facilities nor the allocation of capacity and roles to each facility.	5	CO3
Q 5	Power Grid reports total revenue of \$245,600, cost of goods sold of \$18,950 and net income of \$121,000. Their total assets are \$585,000 and total liabilities are \$250,000. What is their return on equity (ROE)? (a) 36.12% (b) 48.40% (c) 20.68%	5	CO3

	(d)41.98%		
Q 6	PTC reports total revenue of \$47,561, cost of goods sold of \$32,856 and net receivables of \$19,595. Their property, plant and equipment is \$19,813 and they have \$16,240 of inventory. Which ratio is highest — ART, INVT or PPET? (a)ART (b) INVT (c) PPET (d)cannot be determined from the information provided	5	C03
SECTION B (50 Marks)			
1. There are five questions in this section each question is of 10 marks			
2. Attempt all questions in this section			
Q 7	What are the various factors taken into consideration for choosing an INCOTERM? What is the difference between INCOTERM 2000 vs INCOTERM 2010?	10	CO2
Q 8	What are various challenges in construction logistics in power plant?	10	C03
Q 9	Discuss the difference between purchasing & procurement & also between RFI, RFP, RFQ?	10	CO2
Q 10	Best buy sells three models of smart meters, the Litepro, the Medpro, and the Heavypro. Annual demands for the three products are DL= 12,000 for the Litepro, DM = 1 ,200 units for the Medpro, and DH = 120 units for the Heavypro. Each model costs Best Buy \$500. A fixed transportation cost of \$4,000 is incurred each time an order is delivered. For each model ordered and delivered on the same truck, an additional fixed cost of \$1,000 is incurred for receiving and storage. Best Buy incurs a holding cost of 20 percent. Evaluate the lot sizes that the Best Buy manager should order if lots for each product are ordered and delivered independently. Calculate the following: (a) Optimal order size (b) cycle inventory (c) Annual holding cost (d) Order frequency (e) Annual ordering cost (f) Average flow time (g) Annual cost	10	C03
Q 11	Discuss the value chain components of the power sector (Thermal power industry)?	10	
SECTION-C (20 marks)			
Read the situation & attempt the question			
Q 12	As a project manager explain the basic features of an EPC power project contract & the contractual structure of a project-financed power project using an EPC contract Also discuss what are three main approaches for dealing with the issue of concurrent delay?	20	CO4