

Roll No. _____



University of Petroleum & Energy Studies
College of Management & Economics Studies
Kandoli Campus, Dehradun

End Semester Examination – May, 2017

Programme Name: MBA (LSCM)

Subject: Demand planning & Procurement Mgmt.

Subject code: MDSL 824

Semester - II

M.Marks: 100

Duration: 3 Hrs

Note: All sections are compulsory & this question paper carries 4 sections.

Section – A (20 Marks)

Attempt all questions in this section

1. (A) Write the full form of the following **(2*4=8 marks)**

- (a) HDP
- (b) UCC
- (c) CISG
- (d) C-TPAT

(B) Explain the following **(3*4=12 marks)**

- (a) Krajlic Matrix
- (b) Blanket purchase order
- (c) MRP
- (d) Ex-works

Section – B (20 Marks)

Attempt any 4 question, each question carries 5 marks only (5*4=20 marks)

2. (a) Define RFP, RFQ & RFI?
(b) Discuss the four levels for integrative strategy development process?
(c) What are the various currency adjustment clause?
(d) Differentiate between INCOTERM 2000 vs INCOTERM 2010?
(e) Differentiate between purchasing & procurement as per the article “The Business of Procurement”

Section – C (30 Marks)

Attempt any 3 question, each question carries 10 marks (10*3=30 marks)

- 3.(a) An electricity board has seen the demand of electricity increase over the last six months in a locality. Observed demand has been 8415kw, 8732 kw, 9014kw, 9808kw,

10413kw and 11961 kw. Forecast demand for period 7 using trend corrected exponential smoothing with $\alpha=0.1$ & $\beta=0.2$

3 (b) Define CPFR, why there is need for CPFR & CPFR benefits both in terms of demand & supply?

3(c) Madhusudan & Co. produces butter for local market. Quality is not quite good as it could be at this point, but the selling price is low and Madhusudan can study the market response while spending more time on R&D. At this stage, however Madhusudan & co. needs to develop aggregate production plan for the next six months January through June. You have been commissioned to create the plan. The following information should help:

	January	February	March	April	May	June	Total
Demand forecast	500	600	650	800	900	800	4250
Number of working days	22	19	21	21	22	20	125

Costs

Materials	\$ 100/unit
Inventory holding cost	\$ 10/unit/month
Marginal cost of stockout	\$ 20/unit/month
Marginal cost of subcontracting	\$ 100/unit
Hiring & training cost	\$ 50/worker
Layoff cost	\$ 100/worker
Labour hours required	4/unit
Straight time cost(first eight hours each day)	\$12.5/hour

Inventory

Beginning inventory	200 units
Safety stock required	0% of moth required

What is the cost of each of the following production strategies?

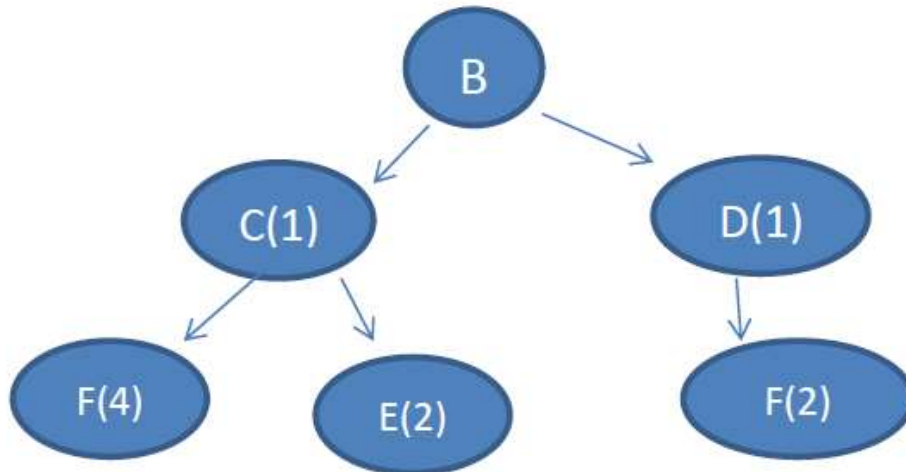
(a) Level strategy (b) subcontracting

3(d) Compute MAD, MSE, MAPE & RMSE & for the following data, showing actual & predicted numbers of accounts serviced

Period	Actual	Forecast
1	217	215
2	213	216
3	216	215
4	210	214
5	213	211
6	219	214
7	216	217
8	212	216

Section – D (30 Marks)

Attempt the situation & provide the solution for this situation



In the above figure, the bills of material and inventory records for product B is given & their components. The MPS for product B calls for completion of 75 units in week 3, 75 units in week 4, 125 units in week 5 & 100 units in week 7. The manufacturing lead time for product B is 1 week. The numbers in parentheses are the number of parts needed to make the parent item. Compute a full MRP explosion & apply the appropriate lot sizing rules to determine a schedule of planned order releases

	Part C	Part D	Part E	Part F
Lot size rule	FOQ=250	LFL	FOQ=1000	POQ=2 weeks
Lead time(weeks)	2	1	1	2
Schedule receipts	300(week 1)	None	None	1000 (week 2)
Beginning inventory	0	125	750	2500
Spare parts orders	None	100 each in week 3 & 6	None	none
Source of item	Manufactured in house	Manufactured in house	Manufactured in house	Purchase items from supplier