



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES
DEHRADUN**

End Semester Examination- May 2017

Program/course: MBA LSCM
Subject: Manufacturing Logistics
Code : MDSL 841
No. of page/s:

Semester – II
Max. Marks : 100
Duration : 3 Hrs

PART A FILL IN THE BLANKS (20 MARKS)

1. A nxn task optimization can be done using
2. The MRP process goes from Sales plan to material ordering using,
..... and
3. The cheapest form of domestic working capital is
4. The period of delay in making payment to a supplier either directly or
against a L/C is called
5. Supplier's credit leverages to reduce cost of working capital.
6. Procurement by combining the requirement of different items to be ordered
from the same supplier is called
7. Air cargo consolidation uses the principle of
8. Time series forecasting takes into account,, and
.....
9. Manufacture of different kinds of automobile engines is possible using
..... layout .
10. The layout of a customer oriented service is done using

PART B ANSWER ANY 4 QUESTIONS (20 MARKS)

Write short notes on any 4 of the following:

1. Inventory analysis.
2. Purchase strategies.
3. Letters of credit.
4. Working capital cycle.
5. Manpower planning.

PART C ANSWER ANY 2 QUESTIONS (30 MARKS)

1. Discuss the relative merits and demerits of using the P and Q model of ordering Inventory. Please specify the assumptions made in using these models.
2. Critically examine the cycle followed for ordering items of dependent demand. What is the role of different departments in finalizing the production plan?
3. Investment in technology gives economies in variable cost of production . However, it has some disadvantages for the organization too. Please examine critically all aspects of adoption of technology upgradation by an organization.

PART D COMPULSORY (30 MARKS)

ABC Ltd. has been facing regular stock out situations in their raw material and component procurement. They appointed a consultant to look into the matter and, after a study, the consultant revised the reorder levels upwards for various items to reduce the chances of stock out. The data given below shows the reorder levels for three items before and recommended ,after the study, by the consultant.

Item 1 Average daily demand - 250 units per day, Standard deviation of daily demand – 35 units per day. Lead time – 13 days, Standard deviation of lead time – 1 day. Existing ROL 3250 units, proposed ROL 3900 units.

Item 2 Average daily demand – 200 kg. per day, Standard deviation of daily demand – 20 kg. per day. Lead time – 24 days, Standard deviation of lead time – 1.5 days. Existing ROL 4800 Kg., proposed ROL 5500 kg.

Item 3 Average daily demand – 100 units per day, Standard deviation of daily demand – 10 units per day. Lead time – 26 days,

Standard deviation of lead time – 2 days. Existing ROL 2600 units, proposed ROL 3050 units.

Please answer the following:

a)What was the mistake made by ABC Ltd. in setting the existing ROLs? (5 marks)

b)What are the chances of a stock out after the ROL is reset, as recommended by the consultant, for each of the 3 items. (15 marks)

c)What could be the possible reasons for the consultant to use different stock out chances for the 3 items? (10 marks)