END TERM EXAMINATION
FIFTH SEMESTER [BBA(B&I)] DECEMBER-2011

Paper Code: BBA305
Subject: Production & Operation Management
Time : 3 Hours
Maximum Marks : 75

Note: Attempt any five questions in all selecting at least two questions from each section.

SECTION-A

Q1 Explain the importance of Production and Operation Management in current scenario. Why it has become an integral part of business education? State with example. (9+6)

Q2 (a) Discuss the important models of inventory system. How will the use of the inventory model differ from another in any industrial setting? Give examples wherever appropriate. (9)

(b) Explain the relationship between quality and productivity under the JIT philosophy. (6)

Q3 (a) Explain the difference between facilities location for an automobile service station and an automobile component factory. (9)

(b) Discuss two important formats for layout and explain what kind of layout should be used in multi speciality hospitals? (6)

Q4 Write short notes on any three of the following:-(5x3=15)

(a) Kaizen and Poka Yokes
(b) Value Analysis and Value Engineering
(c) Basic Transformations in Production
(d) ISO 9000 series
(e) Waiting Line management

SECTION-B

Q5 Discuss the concept of forecasting in POM and explain in details the various techniques used in forecasting. State examples wherever possible. (15)

Q6 A bread manufacturing facility is being planned so that the bread loafs and other similar products manufactured can be supplied to three major towns with large population. The locations of the current towns with their coordinates and volume requirements are given in the following table:-

<table>
<thead>
<tr>
<th>Town</th>
<th>Coordinates</th>
<th>Volumes consumed per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>350,320</td>
<td>6500</td>
</tr>
<tr>
<td>B</td>
<td>375,470</td>
<td>9900</td>
</tr>
<tr>
<td>C</td>
<td>470,280</td>
<td>7600</td>
</tr>
</tbody>
</table>

Calculate the coordinates to locate the Bread manufacturing facility/plant Z so that the new plant can manufacture the different bread products supply it to the above three towns. (15)

Q7 Insurance Policies from a particular insurance company are being sent to various policyholders. In order to check the monitor the performance of the insurance policy making department, sample of 100 units were collected each day for 15 days and see how many policies had errors in them. The results are given below-

P.T.O.
Develop an X bar chart and R chart for the above data. Plot the graph on the copy only and draw your conclusion. Given \( (A_2=0.73, D_3=0.00, D_4=2.28) \)