Date: 11.12.2010   **Max Marks: 100**
Time: 10.00 am to 1.00 pm.   **Duration: 3 hours**

Instructions:
1. The question paper is in three parts.
2. Part A is compulsory. Each question carries one mark
3. In part B answers 3 questions out of 5. Each question carries 16 marks.
4. Part C is a case study with sub questions and it is **compulsory**. It carries 20 marks
5. Use of calculator is allowed wherever necessary.
6. Graph sheet can be used wherever necessary.

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PART - A

Q.1. State True or False   Marks: 08
      1. Purchasing Managers can place fewer and larger orders thus increasing the order cost.
      2. MRO inventory stands for Managing, Repair and operating supplies.
      3. Under stocking costs due to an item required for production not being provided.
      4. The Delphi Method was developed by Delphi Corporation in 1950s.
      5. Safety stocks arise due to variation in consumption rates and variations in lead times.
      6. Proceeds received from the auction are credited to the previous custodial departments cost object.
      7. MH and storage activities should be fully integrated.
      8. FIFO method is not suitable for the trend of falling prices in the market.

Q.2. Fill in the blanks.   Marks: 08
1. Inventory Management does not make ……… or manage ……….., but provides information to managers who make more accurate and timely decisions to manage their problems.
2. Two examples of codification systems are the …….. and ……. Systems.
3. Re-order Level is fixed somewhere between ……..and …….. levels.
4. MRP II is the basis of …….. …………. Planning.
5. The bill of materials as a materials list that provides …………. useful to ………. the manufacturing process.
6. Batch Processing is used when a moderate volume of ………….. and ……… are needed.
7. Finished Goods Inventory will have to be maintained to take care of ……….. and ……….. demand.
8. One thing that is …………. in spare parts management is its ………...

Q.3. Expand the following.   Marks: 08

      1. ROCE :
      2. BOC :
      3. FMCG :
      4. TAC :
      5. TBO :
      6. MOQ :
      7. FTS :
      8. AS/RS :

Q.4. Match A and B   Marks: 08

A	B
1. Inventory	a. Storage Costs
2. Queuing Theory	b. Strategic Planning
3. Inventory Carrying Costs	c. WIP
4. Top Management	d. Shortening of Supply Chain
5. Safety Stock	e. Rotable Spares
6. PPC	f. Largest Asset
7. Time Series Analysis	g. Exponential Smoothing
8. VMI	h. Consumption Rate

PART - B
Answer any 3 questions out of 5 questions form sl.no.5 to 9.

Q.5. Describe briefly advantages of VMI. List out and explain movements of perishable inventories.

Q. 6. a. Explain in detail the costs involved in EOQ.

Q.6.b. Discuss briefly constituents of Consumption Rate and Lead Time with regard to Safety Stock.

Q. 7. a. Mention control measures to be taken to help FGI and discuss in detail.

Q.7. b. Discuss Failure Analysis factor as a need for Failure Analysis.

Q. 8. Mention and explain the factors that have a bearing on Site selection in Warehouse location . Discuss also in detail macro & micro approached in WH selection and acquisition.

Q.9. Write short notes for 4 on the following.

a. Benefits of Inventory Management Applications
b. Weighted Moving Average Method
c. Inventory Categorization
d. Three Bin System
e. Planning BOM

Mr. Venkat , MD of M/s. Hot & Cold Foods Pvt. Ltd. is not happy recently on the performance of materials department in general and inventory in particular of his organization. He has given nod to his Materials Manager Mr. Purushothaman to appoint an Inventory Control Officer to revamp the department.

MM, Mr. Purushothaman appointed Mr. Dheeraj as Inventory Controller to streamline the given assignment. He was given all the required data to analyse and take remedial action.

Mr. Dheeraj, being a regular student with 100% attendance doing the GDMM course (4th SEM) from IIMM solved the problems with ease and aplomb & to the utmost satisfaction of his superiors.

Needless to say that he got the promotion for his efforts and also Institute applauded him for his 100% attendance and active listening to lectures from IIMM faculty.

You are asked to solve the problems using the following data like Mr. Dheeraj and bring laurels to your organization and institute.

There are 4311 number of items in total in inventory in the organization. The annual consumption value of 256 numbers is Rs. 104.34 lakhs, 3374 items consumes a value of Rs.9.42 lakhs and Rs. 14.74 lakhs was consumed by the balance items. The unit price (value) of 3500 items are more than Rs.5000/- , 600 items falls in between Rs. 1000/- and Rs. 4999/-. Balance items in the inventory are less than Rs.1000/-.Out of total inventory, 10% constitutes spares. 70% of spares inventory represents vital, 20% essential and balance are desirable with respect to criticality of the component and production.30% of the total inventory was issued from stores at a rapid speed while 60% at a slower rate. Balance items were non moved during a given period of time.

Based on the above inputs you are asked to find out the answers for following questions.

  a. Identify H, M & L classified items with percentage (L equals Rs. 999/- & less, M equals values between Rs.1000/- and Rs. 4999/- and H equals to Rs. 5000/- and more).
  b. Identify FSN items and find out how many numbers each class has? How many number of items Mr. Dheeraj recommended for speedy disposal?
  c. Identify A, B and C items with percentage? What % of items requires moderate control? What percentage of items need very strict consumption control basis? Hardly any check is required for what percentage of items?

d. How many Vital, Essential and Desirable items are there in the spares inventory?
e. Construct the Bar Charts for the ABC & HML items. Also show VED & FSN items with Pie charts.

(Hint: Mr. Dheeraj used Selection Inventory Control analyses to solve the above problems).