INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management
PAPER No. 8

Operations Management

Date: 11.12.2012   **Max. Marks: 100**

Time: 10.00 a.m. to 1.00 p.m.   **Duration: 3 Hrs.**

Instructions:

1. From Part A – answer all questions (compulsory). Each sub questions carries 1 mark.   **Total: 32 Marks**

2. From Part B – Answer any 3 questions out of 5 questions. Each sub-question carries 16 marks.   **Total : 48 Marks**

3. Part C is a case study (compulsory) with questions. Read the case study carefully and answer the questions.   **Total: 20 Marks**

4. Please read the instructions given in the answer sheet.

_____

Part – A (attempt all questions)   (1 x32 = 32 marks)

1. Select the correct option:

    a. Effective _____ ensures right materials, in right quantities, at right price at place.

        i.   Materials management.

        ii. Inventory management.

        iii. Work study.

        iv. None of the above.

    b. Which of the following is not a factor to be considered while taking a plant location decision?

        i.   Proximity to market

        ii. Availability of labour

        iii. Inventory management

        iv. Sources of raw material

    c. Quality implies

        i.   Conformance to specifications

        ii. Fulfillment of customer needs

        iii. Fitness for use

        iv. Any of the above

    d. Which of the following is incorrect about products and services

        i.   Products are tangible, services are intangible

        ii. Products cannot be inventoried, services can be inventoried

        iii. Products require greater fixed cost, services require less fixed cost

e. Which of the following is not a strategy for managing service demand?

    i. Segmenting customers

    ii. Reservation system

    iii. Differential pricing

    iv. Customer participation

f. Fish-bone diagram is also known as

    i. Histograms

    ii. Cause and effect diagrams

    iii. Scatter diagrams

    iv. Check sheets

g. Group technology layout is also known as:

    i. Product layout

    ii. Process layout

    iii. Stationary layout

    iv. Cellular layout

h. In least square method, the sum of square of deviations of various points from line of fit is:

    i. Minimum

    ii. Maximum

    iii. Can't say

    iv. Depends on whether data is linear or non-linear

2. Match the following:

Column "A"		Column "B"	
a.	Product layout	i.	Project management technique
b.	Aggregate planning strategy	ii.	Standardized products
c.	VED	iii.	Environmental aspects
d.	Availability of labour	iv.	Overtime
e.	ISO 14000	v.	Zero profit
f.	BEP	vi.	Inventory management
g.	PERT	vii.	Decreased materials handling cost
h.	Good plant layout	viii.	Factor affecting Plant location decision

3. Fill in the blanks:

    a. Forecasting involves the projection of the past into the _____.

    b. The _____ or buy decision represents a fundamental dilemma faced by many companies.

    c. _____ is systematic problem solving for continuous improvement.

    d. Shigeo Shingo is associated with the concept of _____.

    e. Production can be defined as adding or _____ value.

    f. _____ is considered father of Japanese Quality Management System.

    g. _____ curves are used to depict the failure rate of equipment over their life cycles.

    h. _____ causes are those that occur due to random events that cannot be controlled.

4. Give the full forms:

a) JIT	b) EBQ	c) FMS	d) LOB
e) CADD	f) PDCA	g) ERP	h) MRP

Part – B (answer any 3)   16 x 3 = 48 marks

5. Production management and operations management are one and the same thing. Do you agree? Explain.

6. What is forecasting? Why is it necessary in Production Function?

7. Write a detailed note on aggregate planning and its strategies.

8. a. Describe the objectives of plant layout.

    b. What do you understand Kanban Cards?

9. Write short notes on **ANY FOUR** of the following:

    a. Work study.

    b. Statistical quality control.

    c. Capacity planning.

    d. Quality circle.

    e. Production planning and control.

10. Consider the following project:

Activity	Predecessor	Duration (Weeks)
A	-	5
B	A	4
C	A	7
D	B	8
E	C	9
F	D, E	4

a. Draw the network diagram.

b. Determine critical path and minimum project duration.

c. Compute EST, EFT, LST, LFT and float available on each activity.

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