INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management

Paper-18.A (New) & 17.A (Old)
Project Management

DATE: 17.12.2011   MAX. MARKS: 100
Time: 2.00 p.m. to 5.00 p.m.   Duration : 03 hrs.

INSTRUCTIONS :

1. From Part 'A', answer four questions (Compulsory). Each sub-question carries 01 mark. **Total: 32 Marks**

2. From 'B', answer any 3 out of 5 questions. Each question carries 16 marks. **Total Marks: 48**

3. Part 'C', is a case study with sub questions (Compulsory)   **Total Marks: 20**

4. Use of calculator and/or mathematical table is permitted. Graph sheet can be used wherever necessary.

5. Please read the instruction on the answer sheet.

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Part -A

Que1   Expand the following

1 LOB

2 CPM

3 PERT

4 DPR

5 WBS

6 PBP

7 ROI

8 IRR

Que2   Fill in the blanks

1. Various stages through which a product passes are Introduction, Growth ,Maturity and ---------------

2   Formula for Expected Time (te) in PERT is   te = (to + 4tm +tp) ÷ ---

3 A ------ Activity network diagram is defined as an activity which does not consume time or resource but it is a useful and necessary constraint

4 NPV in project cost estimation stands for ----------------

5 Total Cost of the project is sum of   ------- and Indirect Cost

6 The financial cost and benefits of a project is properly known as --------

7 Matrix organization is a combination of -----   and ------ organization and hence contains the advantages of both.

8 Total Float (TF) is equal to the difference between its latest starts and -------

Que3   Match the following

	Column A		Column B
a)	IRR	**1**	Design & Drafting software used for Project Management
b)	Quality Circle	**2**	Quality System Standard
c)	CADD	**3**	The rate of discount which makes its NPV equal or less than Zero
d)	ISO 9000	**4**	Group of work center members chartered with implementing continuous implementation
e)	Ishikawa Diagram	**5**	Technique of reducing project duration by allocating resources
f)	Project Crashing	**6**	Extra time available over and above its duration
g)	Float / Slack in Project	**7**	Environment Friendly Standard
h)	ISO 14001	**8**	Cause and Effect diagram

Que4   Find True or False of the following

1) Demand for a product generally tend to follow a predictable pattern called the product life cycle (PLC)

2) The drawing of the Arrow Diagram is also called Network Diagram

3) If the payback period is longer, the project is more desirable

4) Those Activities which have zero float/slack form the critical path are called Critical Activities

5) Cause Effect Diagram is a technique for identifying the most probable cause affecting a problem

6) Team Synergy shows "One plus one is always greater than two"

7) Float is with reference to an activity and is used with CPM whereas Slack is with reference to an event and is used with PERT

 8) ISO 14040 is a standard for Specifications and Guidelines for EMS

PART-B

Que5

a) Describe the relationship between Project Management and Line Management

b) Describe the various stages of Product Life Cycle

Que6   Write short notes on (any two) (8+8)

1. a) Line of Balance

    b) Gantt Chart & its limitations

2   a) CPM & PERT

    b) Network Diagram

3   a) Quality Circle

    b) Importance of Audit & review in project management

4   a) Decision Tree with example

b) Define Benchmarking. What are the steps in benchmarking process?

Que7   a) What is Matrix organization? What are the advantages and limitations of Matrix organization

b) What are the various problems - solving techniques? Explain any one in detail.

Que8

For the given following table, answer the following questions:

Activity	Optimistic Time (Days)	Most Likely Time (Days)	Pessimistic Time (Days)
1 - 2	2	2	8
1 - 3	1	3	7
1 - 4	2	3	8
2 - 5	1	1	1
3 - 5	2	5	14
4 - 6	2	5	8
5 - 6	3	6	15

A) i) Draw the Network Diagram

   ii) Find the Critical Activities & the Critical Path

B) i) Calculate the expected time & Variance of Critical Path

   ii) How much is the probability of completing the project in 19 days?

Que9   **Distinguish between**

a) Distinguish between PERT & CPM

b) Distinguish between ISO 9000 Series and ISO 14000 Series standards

PART C

(Case Study)

An established US based Manufacturing company wants to add a new product line. The various activities along with their inter-relationship and duration are as given below:

Activity	Description	Time (Weeks)	Preceding
1	Arranging Sales & Distribution Office	9	-
2	Hire Marketing Executives	6	1
3	Training to Executives	6	2
4	Select Advertising Agency	4	1
5	Plan Advertising Campaign	6	4
6	Conduct Campaign	10	5
7	Package Designing	5	-
8	Packaging Facilities Establishment	14	7
9	Order Stock from Manufacturer	15	-
10	Package Initial Stocks	7	9
11	Distributor Selection	8	1
12	Sell to Distributors	4	3,11
13	Ship Stocks	6	10,12

Based on the above information, kindly answer the following questions:

i) Draw the network Diagram

ii) Construct the Network Table

iii) Find the Critical Activities & Critical Path

iv) Find out Free Float

v) Draw the Squared Network

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