



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Paper-18.A Project Management (New)

June 2015

DATE: 20.06.2015
Time: 2.00 p.m. to 5.00 p.m.

MAX. MARKS: 100
Duration : 03 hrs.

INSTRUCTIONS :

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

PART A

(1 mark each Total = 32)

Q.1. Select and write correct option. (Do not reproduce the statement)

- a) Which of the following is not an element of LOB approach
- | | |
|--------------------------|------------------------|
| A) An objective chart | B) A progress chart |
| C) An organization chart | D) A plan of operation |
- b) DPR stands for
- | | |
|----------------------------------|-------------------------------|
| A) Detailed Project Requirements | B) Detailed Project Resources |
| C) Date of Project Registration | D) Detailed Project Report |
- c) Insurance is a technique for
- | | |
|-------------------|--------------------|
| A) Risk transfer | B) Risk Avoidance |
| C) Risk Reduction | D) Risk Acceptance |
- d) The process of breaking down of the entire project into distinct activities is known as
- | | |
|---------------|-----------------------------|
| A) Networking | B) Work breakdown structure |
| C) Scheduling | D) Project initiation |
- e) All of the following are related to Gantt chart except
- | | |
|--|-------------------------------|
| A) It is modified bar chart | B) Used as a time scale |
| C) Depicts interdependencies of activities | D) Named after its originator |
- f) Which of the following is true about dummy activity
- | | |
|--|------------------------------|
| A) It does not consume time | B) It is used in AON network |
| C) It is used to give an aesthetic look to the diagram | D) Drawn with thick line |

- g) All of the following are classification of constraints faced by a project manager except
- | | |
|--------------|------------------|
| A) Mandatory | B) Discretionary |
| C) Internal | D) External |
- h) Which of the following is the decision making criteria based on optimism under uncertainty
- | | |
|----------------------|----------------------|
| A) Maximin criterion | B) Maximax criterion |
| C) Laplace criterion | D) Hurwicz criterion |

Q.2. Fill in the blanks. (Do not reproduce the sentence)

- a) Product life cycle has four stages whereas a Project has ____ stages in its life cycle
- b) Risk is the product of _____ and consequence of project.
- c) _____ and _____ method relates to scheduling.
- d) An event in a network is defined as _____
- e) PFR is a short form for _____
- f) Project _____ is a method for shortening the project duration
- g) Last phase of any project is project _____
- h) _____ network is deterministic in nature.

Q.3. State True or False

- a. EIA is a method of determining economic index of acceptance of a project
- b. Preventive maintenance is an effect oriented measure of risk
- c. PDM and AOA are the same
- d. Fulkerson rule is a method of analyzing networks
- e. Matrix organization structure is more flexible
- f. Resource leveling is done to lessen the wastage of resources
- g. Incentive contracts are usually used when there is some level of uncertainty
- h. Post Implementation Review is to reflect on the events that took place in the closure of the project

Q.4. Match the following

- | A | B |
|----------------------|----------------------------|
| 1) Critical activity | a) Three time estimate |
| 2) Slack | b) Planning technique |
| 3) PERT | c) Cost estimate |
| 4) LOB | d) Value of work completed |
| 5) CCE | e) Zero float |
| 6) Earned value | f) Event |
| 7) CADD | g) Sigmoid formula |
| 8) S curve | h) PDMS |

PART B

48 marks

(Answer any three. Each question carries 16 marks)

- Q.5. a) Define the term project and project management. (4 marks)
b) What are the components of project management? (4 marks)
c) Explain the concept of Line of Balance. (8 marks)
- Q.6. a) Explain the utility of networking as a planning tool. (8 marks)
b) Explain various cost control techniques. (8 marks)
- Q.7. a) Discuss various contract types with merits and demerits. (8 marks)
b) Explain the uses of post implementation review. (8 marks)
- Q.8. Distinguish between (4x4 marks)
a) CPM and PERT
b) Project structure and matrix structure
c) Product life cycle and project life cycle
d) Risk transfer and risk avoidance
- Q.9. Write short notes on any four (4x4 marks)
a) Squared network
b) Change control
c) Gantt chart
d) S curves
e) Cost estimation

PART C**20 marks****Q. 10 compulsory**

Q.8. A project consists of 9 activities. The three time estimates of each of the activities along with the precedence relationships are given below.

Job	Predecessor	Time (days)		
		to	tm	tp
A	-	2	4	7
B	A	1	4	9
C	A	3	6	9
D	B,C	2	3	5
E	B	1	3	9
F	C,D	2	4	5
G	E	3	8	10
H	E,F	1	2	3
I	G,H	3	5	7

Questions;

- Calculate the expected time and the variance for each activity. (5 marks)
- Draw the critical path diagram & Indicate the critical path (6 marks)
- Calculate the expected completion time of the project (2 marks)
- Calculate floats for each of the activities (5 marks)
- What is the standard deviation of the project (2 marks)
