



INDIAN INSTITUTE OF MATERIALS MANAGEMENT  
Post Graduate Diploma in Materials Management

Dec 2016

Paper-18.A PROJECT MANAGEMENT

DATE: 18.12.2016  
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 marks)**

**Q.1. Fill in the blanks. (Do not reproduce the sentence)**

- a) The \_\_\_\_\_ organization represents the structure in direct vertical relationships through which authority flows.
- b) The \_\_\_\_\_ approach examines inter-relationships and interdependency of organizational parts.
- c) \_\_\_\_\_ is defined as uncertainty surrounding an event.
- d) Matrix organization achieves efficiency, economy, and \_\_\_\_\_.
- e) Constraints that are due to physical limitations are \_\_\_\_\_.
- f) The check points in projects are called \_\_\_\_\_.
- g) \_\_\_\_\_ is a graphical depiction of project path.
- h) Insurance is an example of risk \_\_\_\_\_.

**Q.2. State True or False**

- a. Project objectives are always economical in nature.
- b. Line of balance is a management technique to determine the value of completed tasks in a project.
- c. CPM stands for crucial performance measures.
- d. Maturity is a phase in project life cycle.
- e. A committed project team is the first and foremost requirement for the success of a project.
- f. Independent float is that part of total float that does not affect subsequent activities.
- g. PERT is activity oriented network analysis.
- h. Hurwicz approach to decision making is based on the criterion of realism.

**Q. 3. Expand the following**

- a) EIA
- b) GERT
- c) TEFR
- d) PDM
- e) ICB
- f) IAA
- g) LRM
- h) PIR

**Q.4. Match the following**

- | <b>A</b>             | <b>B</b>             |
|----------------------|----------------------|
| 1) Gantt chart       | a) Contract type     |
| 2) WBS               | b) Crashing          |
| 3) Event             | c) Network           |
| 4) IRR               | d) Planning tool     |
| 5) Resource leveling | e) Node              |
| 6) Earned value      | f) Project appraisal |
| 7) Cost plus         | g) Activities        |
| 8) Fulkersion rule   | h) Work accomplished |

**PART B**

**48 marks**

**(Answer any three. Each question carries 16 marks)**

- Q.5. a) Project is a conversion model. Substantiate the statement. (8 marks)  
b) Explain project within project with suitable examples? (8 marks)

- Q.6. a) What are the requirements of a successful project manager? (8 marks)  
b) What is project risk? What are the steps involved in managing risk? (8 marks)

- Q.7. a) Explain concept and methods of project crashing. (8 marks)  
b) What is project closure? Discuss the steps involved. (8 marks)

**Q.8. Distinguish between**

(4x4 =16marks)

- a) Precedence Diagram and Network diagram
- b) Functional organization and divisional organization
- c) Project and production
- d) Risk reduction and risk acceptance

**Q.9. Write short notes on any four**

(4x4 =16marks)

- a) Matrix organization
- b) Resource leveling
- c) Project Budget
- d) S curves
- e) Project management software

**PART C  
(compulsory)****20 marks**

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	-	10	12	14
B	-	10	10	10
C	-	7	8	11
D	B	11	12	19
E	C	5	6	13
F	A,B	14	18	22
G	D,E	10	11	14
H	C	18	21	24
I	F,G	5	6	7

**Questions;**

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

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