Unit 6 - Week 5-Planning & Scheduling part-2

Course outline

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Week 1 - General overview and project organization

Week 2- Estimation of project cost

Week 3 - Construction Economics

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Week 5-Planning & Scheduling part-2

- Lecture 18: Project monitoring and control systems
- Lecture 19: Resource leveling and allocation
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Assignment-5

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-09-04, 23:59 IST.

General Information:
1. There are 8 questions in this assignment.
2. Questions 1 to 4 are based on comprehensive information given below.
3. Questions 3 and 4 carry 2 marks each, whereas the rest of the questions carry 1 mark each.

Answer questions 1 to 4 based on the information given below.

The details of five activities A, B, C, D and E in a project in terms of their normal and crash durations (in days), and the normal and crash costs, are given in the following table. The indirect cost may be taken as INR 5000 per day, if required.

Activity	Predecessor Activity	Normal Duration (Days)	Crash Duration (Days)	Normal Direct Cost (INR)	Crash Direct Cost (INR)
A	-	2	1	10000	14000
B	-	4	2	20000	27000
C	A	3	2	25000	28000
D	C	4	3	5000	7000
E	B	6	4	10000	14000

1) What is the crash slope of activity B? *1 point*

- INR 2,500
- INR 3,000
- INR 3,500
- INR 7,000

No, the answer is incorrect.
Score: 0
Accepted Answers:
INR 3,500

2) What is the total project cost under normal condition? *1 point*

- INR 50,000
- INR 70,000
- INR 1,20,000
- INR 1,50,000

No, the answer is incorrect.
Score: 0
Accepted Answers:
INR 1,20,000

3) Considering the total cost involved, the optimum project duration, (i.e. duration for minimum total cost) is ____ days? *2 points*

- 6
- 7
- 8
- 9

No, the answer is incorrect.
Score: 0
Accepted Answers:
8

4) What is the lowest total cost that can be achieved by crashing the project till the optimum duration? *2 points*

- INR 65,000
- INR 1,14,500
- INR 1,16,000
- None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
INR 1,16,000

5) In the context of crashing of activities in project scheduling, consider the following statements: *1 point*

Statement 1: Non-critical activities are crashed to reduce the project duration.
Statement 2: An activity that has maximum cost slope is considered first for crashing.

Which of the following is correct?

- Both statements are TRUE
- Statement – 1 is TRUE and statement – 2 is FALSE
- Statement – 1 is FALSE and statement – 2 is TRUE
- Both statements are FALSE

No, the answer is incorrect.
Score: 0
Accepted Answers:
Both statements are FALSE

6) In the context of resource leveling, consider the following statements: *1 point*

Statement 1: Critical activities are given the first priority while allocating resources.
Statement 2: The exercise uses activity floats to reschedule activities, delaying project completion.

Which of the following is correct?

- Both statements are TRUE
- Statement – 1 is TRUE and statement – 2 is FALSE
- Statement – 1 is FALSE and statement – 2 is TRUE
- Both statements are FALSE

No, the answer is incorrect.
Score: 0
Accepted Answers:
Statement – 1 is TRUE and statement – 2 is FALSE

7) The normal duration and normal cost of an activity are 6 days and INR 6000, respectively. It is also given that the crash duration and crash cost of that activity are 2 days and INR 15000, respectively. What is the cost slope (in INR/day) of that activity? *1 point*

- 1,500
- 2,250
- 3,000
- 4,500

No, the answer is incorrect.
Score: 0
Accepted Answers:
2,250

8) There is a task involving fixing 160 m^2 of timber formwork for the roof slab of a single storeyed building. The target time of completing the task is 4 days, working 8 hours per day. If a team of workers consisting of two skilled workers and one unskilled worker can install formwork at 1.25 m^2 /hr, then the minimum number of teams required is___. *1 point*

- 2
- 3
- 4
- 5

No, the answer is incorrect.
Score: 0
Accepted Answers:
4