Assignment 3

Deadline: Day 24/4/2017 @ 23:59

**[Total Mark for this Assignment is 4]**

***IT Project Management***

***IT270***

**Instructions:**

* This Assignment must be submitted on Blackboard via the allocated folder.
* Email submission will not be accepted.
* You are advised to make your work clear and well-presented, marks may be reduced for poor presentation.
* You MUST show all your work.
* Late submission will result in ZERO marks being awarded.
* Identical copy from students or other resources will result in ZERO marks for all involved students.
* This is an individual assignment.

Student Details:

|  |  |  |
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# Question One

***2 Marks***

*Learning Outcome(s):*

* Understand the importance of project schedules and good project time management
* Define activities as the basis for developing project schedules
* Describe how project managers use network diagrams and dependencies to assist in activity sequencing

**Consider the following project activities:**

|  |  |  |
| --- | --- | --- |
| Activity Name  | Immediate Predecessor (list number/ name, separated by ‘,’) | Normal Time  |
| 1 |  | 6 |
| 2 |  | 2 |
| 3 | 1 | 3 |
| 4 | 2 | 2 |
| 5 | 3 | 4 |
| 6 | 4 | 1 |
| 7 | 5,6 | 1 |
| 8 | 7 | 6 |
| 9 | 8 | 3 |
| 10 | 8 | 1 |
| 11 | 9,10 | 1 |

**Fill the following table:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Activity Name | On Critical Path | Activity Time | EarliestStart | EarliestFinish | Latest Start | Latest Finish | Slack(LS-ES) |
| 1 | Yes | 6 | 0 | 6 | 0 | 6 | 0 |
| 2 | No | 2 | 0 | 2 | 8 | 10 | 8 |
| 3 | Yes | 3 | 6 | 9 | 6 | 9 | 0 |
| 4 | No | 2 | 2 | 4 | 10 | 12 | 8 |
| 5 | Yes | 4 | 9 | 13 | 9 | 13 | 0 |
| 6 | No | 1 | 4 | 5 | 12 | 13 | 8 |
| 7 | Yes | 1 | 13 | 14 | 13 | 14 | 0 |
| 8 | Yes | 6 | 14 | 20 | 14 | 20 | 0 |
| 9 | Yes | 3 | 20 | 23 | 20 | 23 | 0 |
| 10 | No | 1 | 20 | 21 | 22 | 23 | 2 |
| 11 | Yes | 1 | 23 | 24 | 23 | 24 | 0 |
| Project Completion Time = | 24 | Weeks |
| Number of Critical Path(s)= | **one critical path with 7 nodes** |

***Note: On critical path column the answer (Yes or No ).***

# Question Two

***2 Marks***

**Assume that ABC Company has invested a budget of 10 million riyals for XY project and planned to complete it in 10 months. Let’s also assume that the company planned to spend the budget equally in each month. However, when the first two months has passed, the project manager has found out that the total of one million riyals spent. Suppose RP=0.25**

**Based on the above scenario, answer the following:**

**a) What is the cost variance, schedule variance, cost performance index (CPI), and schedule performance index (SPI) for the project?**

**RP=0.25**

**PV= 2,000,000 // PLANED VALUE IN 2 MONTHS**

**AC= 1,000,000 // ACTUAL COST**

**CV**= EV - AC = 500,000 – 1,000,000 = **-500,000**

**// EV = RP \* PV = 0.25 \* 2,000,000 = 500,000**

**SV=** EV - PV = 500,000 – 2,000,000 = **-1,500,000**

**CPI=** EV/ AC = 500,000 / 1,000,000 = **0.5**

**SPI=** EV/ PV = 500,000 / 2,000,000 = **0.25**

**b) How much will it actually cost the company to complete this project, and how long will it really take to complete it based on the performance to date?**

**CALCULATE THE ESTIMATE COST AT COMPLETION**

**EAC =** BAC / CPI = 10,000,000 / 0.5 = **20,000,000**

**THE TIME TAKES TO COMPLETE THE PROJECT**

**Estimated Time to Complete =** 10 / 0.25 = **40 months**

 **// THE ACTUAL COST WILL INCREASE TO 20,000,000**

**// IT WILL COMPLETE AT 40 MONTHS**

**c) What do you think of the project performance? over/under the budget? behind /ahead the schedule? Justify your answer.**

**After calculating the estimate cost at completion and the estimate time to complete we found out that the project isn’t stick in the planned budget and schedule.**

**The project performance is low based on the actual cost that has spent. In 2 months, the project spends only 1,000,000 ... we supposed to spend 2,000,000 riyals in 2 months. // (LESS COST MEANS LESS WORK OR PERFORMANCE).**

**The budget is under the estimate cost, and the planed schedule is behind the planned time.**