## CASE 3

## QUESTION 1

Angela Smith is the project manager for a project with three objectives: a reduction in the number of employees, the implementation of new efficient work processes, and the introduction of a new ERP system (an IT system) that covers areas such as production, warehousing, sales, purchasing, and finance. Employees from all these areas will be involved in the project as needed. A contract will be established with a consulting firm responsible for delivering and implementing the ERP system. According to the plan, the project will commence on December 1st of this year and is expected to conclude by the end of May next year. The project owner is ambitious, aiming for the benefits to be realized within 6 months after the project's completion. Necessary assumptions should be made regarding framework conditions, project realism, cost limitations, the size of the project group, etc.
a) What characterizes the project manager role? Discuss what you think Angela Smith should emphasize to develop good collaboration and good motivation in this project?
b) Identify and discuss three critical success factors you think are important for the success of this project.
c) Explain how the PSO concept can be relevant in this project. Discuss what should be done and by who to maximize benefits realization from this project.
d) Identify three stakeholders to the project and perform a stakeholder analysis. What information about the project does each of the identified stakeholders require? What types of power can a stakeholder possess? Explain. Discuss how the project manager should handle a stakeholder that has power to influence the project.
e) Discuss what is important to focus on during the termination (closeout) of the project and why.

## QUESTION 2

A project has the following information:

| Activity | Predecessor <br> activity | Duration <br> (days) | Workers <br> needed <br> (each day) |
| :---: | :---: | :---: | :---: |
| A | - | 4 | 2 |
| B | - | 3 | 2 |
| C | A | 6 | 4 |
| D | A, B | 2 | 2 |
| E | C | 4 | 1 |
| F | D | 3 | 3 |
| G | D | 4 | 2 |
| H | E, F, G | 4 | 3 |

a) Draw the network diagram. How long will it take to complete the project? Identify the critical activities and the critical line(s)/path(s). Which activities have slack and how much?
b) Develop a Gantt-chart and a resource table for the project where the activities start at the earliest start. Mark the critical activities in the Gantt-chart. In the resource table summarize how many workers are needed every day.
c) Assume that access to resources is limited to maximum 6 workers every day. Perform resource leveling (by moving activities with slack) and develop a new resource diagram.
d) The duration of the project must be reduced with 4 days, but at minimum costs. Disregard the resource limitation in question c). Now the duration of all activities can be reduced by half, by using four times more workers. Develop a new resource diagram showing the new schedule.
e) Disregard the information in question c) and d). Assume that each worker costs 5 (thousands) each day. Create a table where you summarize the total costs for each day and calculate accumulated costs. What is the total planned costs for this project (the budget)?
f) The project is followed-up when it is halfway. Then you have been given the following information:

| Activity | \% completed | Actual costs <br> (thousands) |
| :---: | :---: | :---: |
| A | $100 \%$ | 70 |
| B | $100 \%$ | 40 |
| C | $2 / 3$ | 100 |
| D | $100 \%$ | 20 |
| E | - | - |
| F | $2 / 3$ | 50 |
| G | $3 / 4$ | 30 |
| H | - | - |

What is PC, AC, EV, CV, BV, SV, CPI, SPI, ECAC and ETAC when the project is being followedup at halfway? Discuss the projects status.
g) Assume that the project from halfway until it is finished has no cost variance (i.e. $\mathrm{CPI}=1$ ).

Calculate the projects total costs with such an assumption.

