



Dept. of Computer Engineering
First Exam, First Semester: 2009/2010

Course Title: Software Engineering
Course No: (630351)
Lecturer: Mohammed Bani Younis

Date: 19/11/2009
Time Allowed: 1 Hour
No. of Pages: 4

Question 1: Multiple choice question **(4 points)**

Choose **ALL** the correct answer in the following questions

- 1) System Engineering is:
 - a) to solve a straightforward problem
 - b) to develop alternative solutions for a problem
 - c) to apply systematic methods applicable to system development
 - d) none of the above

- 2) In System development the following is applicable:
 - a) Development of a system, that consists of software components
 - b) Additional boundary conditions have to be considered
 - c) Development of a system, that consists of hardware and software components
 - d) only one solution for the problem under consideration is available

- 3) Using methods to model a process can help in:
 - a) dividing a large task into subtasks
 - b) making it better controllable, plannable and manageable
 - c) allow pragmatic solution of the process
 - d) none of the above

- 4) Software Engineering is an engineering discipline concerned with:
 - a) software development
 - b) software maintenance
 - c) software related documents
 - d) project management

Question 2: **(8 points)**

- a) Draw the diagram which illustrates the need of System Engineering. [2 points]

b) Mention the two principles of the decomposition; draw the schematics of both of them. [2 points]

c) Mention the rules which one has to follow during Brainstorming? [2 points]

d) Mention four of the special mechanisms of the visualization in a metaplan. [2 points]

Question 3:

(8 points)

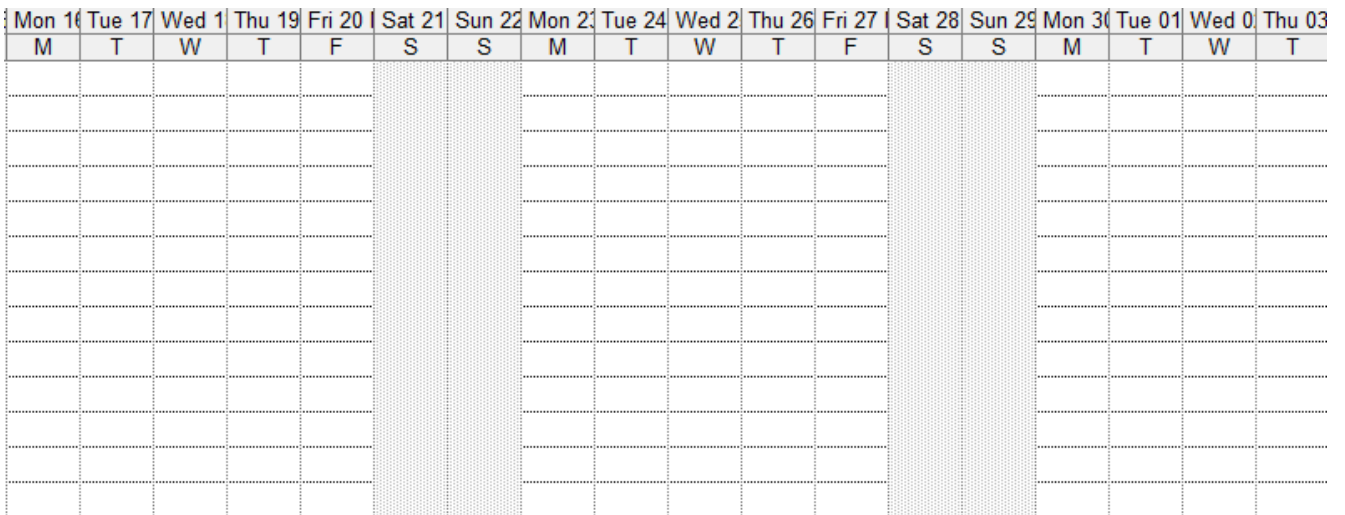
Read this paragraph carefully and answer the following questions:

A student has to perform more than one activity in his Reverse Engineering project. These activities have to start on 19.11.2009. These activities are as shown in the figure 1:

Figure 1: Reverse engineering Project

Task ID	Task Name	Duration	Start	Finish	Late Finish	Start Slack	Predecessors
1	choosing the device	0 days	Thu 19.11.09				
2	prescreening	2 days					1
3	Observation	5 days					2SS+3 days
4	Dissection	4 days					2FS+2 days
5	Analysis	3 days					4FS-2 days
6	Final report	0 days					5;3

Figure 2: Gantt Diagram



- a)** Please fill the missed term in the Figure 1 by applying the Forward and Backward
- b)** Draw the Gantt diagram of the Project (Figure 2).
- c)** Calculate the slack for all activities. Show the critical activities and the critical path.