

جامعة بيرزيت  
BIRZEIT UNIVERSITY  
Computer Science Department  
Software Engineering (COMP 433)  
Second Semester 2002/2003

First Exam

05/05/2003

*Question One* [60 marks]

- A) Compare and contrast how do the waterfall model and the evolutionary models handle a significant change in requirements late in the software development process?
- B) Should a development organization adopt a single process model for all its software development? Discuss the pros and cons.
- C) Risk management is an essential part of project management. Describe three typical risks that can occur in a software project, and for each suggest a possible countermeasure (حل مقترح).
- D) Brooks argues that adding people to a project that is running late will make it even later. Why would this be the case?
- E) Explain the situations in which the increment model is an ideal choice? Give an example to support your answer?
- F) What are the non-Functional Requirements? Describe three different types of non-functional requirements which may be placed on a system and give example of each of these types of requirements?



*Question Two* [40 marks]

A target product has 7 simple inputs, 11 average inputs, and 8 complex inputs. There are 40 average outputs, 5 simple inquiries, 18 average master files, and 12 complex interfaces.

- Given the table below; determine the unadjusted function points (UFP)?
- If the total project complexity is 49, determine the total adjusted function points?
- If Java was chosen to implement the product (each function point is implemented with 55 LOC in Java), what is the estimated effort in person-months?
- What is the schedule time required to develop the product?

Component	Level of Complexity		
	Simple	Average	Complex
Input item	3	4	6
Output item	4	5	7
Inquiry	3	4	6
Master file	7	10	15
Interface	5	7	10