

**OLLSCOIL NA hÉIREANN, GAILLIMH****National University of Ireland, Galway****Semester Two Examinations, 1999/2000****Bachelor of Commerce Final Year****SYSTEMS ANALYSIS II (MS305)****Professor R. O'Callaghan****Professor J. F. Collins****Mr. M. A. Lang****Time allowed: TWO hours****Answer any THREE questions****All questions carry equal marks**

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1. What are the principal skills and techniques that a business systems analyst should possess and be proficient with so as to be an effective fact-finder?

**(33 marks)**

2. Discuss the contribution that Computer-Aided Systems Engineering (CASE) tools can make to the development of information systems.

**(33 marks)**

3. "Many organisations have embraced the systems development life cycle (SDLC) to the extent that the phases and steps constitute a procedural impediment to flexible design. The distance between the point where the specification is frozen and when end users actually see the finished system greatly mitigates against success".

Discuss this statement with particular reference to the role that Rapid Application Development (RAD) could make towards developing information systems more productively and successfully.

**(33 marks)**

4. In the context of object-oriented systems development, describe, using examples, what is meant by each of the following terms:

- (a) Encapsulation (10 marks)
- (b) Inheritance (10 marks)
- (c) Associations / relationships (8 marks)
- (d) Message passing (5 marks)

**(Total marks for Question 4: 33 marks)**

5. Given the following schedule of activities which describe an information systems development project, you are required to:

- (a) Draw a PERT/CPM diagram. (15 marks)
- (b) Draw a Gantt chart. (10 marks)

Activity	Duration	Prerequisite Activities
A	3	-
B	3	-
C	5	A
D	6	A
E	5	C
F	8	B, C, D
G	7	B
H	5	E, F, G
I	6	E

- (c) If activity B were to be delayed by 4 days, how would the project timeframe be affected? If this activity were delayed a further 4 days, how would the timeframe then be affected?

**(8 marks)**

**(Total marks for Question 5: 33 marks)**