



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**INFORMATION COMMUNICATION TECHNOLOGY**  
**4<sup>TH</sup> YEAR 1<sup>ST</sup> SEMESTER 2022/2023 ACADEMIC YEAR**  
**(MAIN CAMPUS)**

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**COURSE CODE: ITB 1413**

**COURSE TITLE: GROUP DESIGN WORKSHOP**

**EXAM VENUE: STREAM :( BSc ICT)**

**DATE: EXAM SESSION:**

**TIME: NO of STUDENT: 30**

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**INSTRUCTIONS:**

- 1) Answer Questions 1 (Compulsory) and ANY other Two (2) Questions**
- 2) Candidates are advised not to write on the question paper**
- 3) Candidates MUST hand in their answer booklets to the invigilator while in the examination room**
- 4) No mobile phones in the examination room.**

**QUESTION 1 (30 Marks)**

The following activities have been identified for a development project, with estimates of their duration, and sequence in which they should be carried out.

Activity	Duration (weeks)	Depends on
A	6	-
B	3	A
C	8	A
D	5	B,C
E	7	C
F	5	D
G	4	E,F
H	4	F
I	7	G
J	8	G,H
K	6	J

- a) Using an appropriate planning technique, identify the total duration of the project, and identify those activities the project manager will want to monitor carefully while they are in progress.

(15 marks)

- b) Explain why configuration management is a vital component of project management, noting particularly the importance of change control.

(10 marks)

- c) Discuss how organisations can enthuse their staff to commit to organizational goals.

(5 marks)

**QUESTION 2 (20 Marks)**

- a) The Software Engineering Institute (SEI) at Carnegie Mellon University proposed the People Capability Maturity Model (P-CMM) as an approach to developing the capabilities and performance of their staff, while at the same time improving the software development process. Briefly discuss people CMM Architecture

(10 marks)

- b) New business models have emerged for internet-based companies. For a company with which you are familiar, describe the main features of their security model (you might consider Google, Facebook, eBay)

(10 marks)

**QUESTION 3 (20 Marks)**

- a) Explain the reasons why a development team might adopt an Information Systems Development Methodology (ISDM). (6 marks)
- b) Discuss the steps that may be taken to ensure successful adoption of an ISDM. (14 marks)

**QUESTION 4 (20 Marks)**

- a) Explain why the risks associated with development projects should be assessed and managed throughout the life of a project, and outline the major steps undertaken in risk management. (10 marks)
- b) A gas and electricity supplier has recently contracted your firm to develop a replacement system for their existing billing system. Due to additional work load, tight schedules and the pressure to learn new languages to be able to deliver on this project, your staffs are frustrated and disoriented. It is critical that the project manager motivates the team; suggest an appropriate leadership style for the project manager assigned to the project (10 marks)

**QUESTION 5 (20 Marks)**

- a) Describe the particular problems of managing very large projects, and discuss how these can be managed. (10 marks)
- b) Suggest ways, through which your project team could implement, manage and control changes to the functionality of the system in development. (10 marks)