



**MURANG'A UNIVERSITY OF TECHNOLOGY**  
**SCHOOL OF COMPUTING AND INFORMATION**  
**TECHNOLOGY**

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**UNIVERSITY ORDINARY EXAMINATION**

**2024/2025 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR**  
**OF SCIENCE IN INFORMATION TECHNOLOGY**

**SIT 401– ICT PROJECT MANAGEMENT**

**DURATION: 2 HOURS**

**INSTRUCTIONS TO CANDIDATES:**

1. Answer question ONE and any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

## **SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION**

### **QUESTION ONE (30 MARKS)**

- a) Define project scope and explain its **TWO** importance in ICT Project Management.  
(4 marks)
- b) Discuss the role of a project manager in ensuring the success of an ICT project. Provide examples of any **TWO** of their key responsibilities.  
(6 marks)
- c) Discuss **TWO** importance of effective communication and collaboration in ICT project management.  
(4 marks)
- d) Differentiate between Agile and water fall project management methodologies. Provide examples of scenarios where each methodology is most suitable.  
(6 marks)
- e) Describe the process of project initiation and the key outputs of this phase in ICT project management.  
(4 marks)
- f) What is the Critical Path Method (CPM) and how does it help in identifying the project duration?  
(2 marks)
- g) Explain the concept of Work Breakdown Structure (WBS) and its any two relevance in project planning.  
(4 marks)

## **SECTION B– ANSWER ANY TWO QUESTIONS IN THIS SECTION**

### **QUESTION TWO (20 MARKS)**

- a) Evaluate the role of effective communication in ICT project success which three communication barriers can hinder project success, and how can they be mitigate.  
(8 marks)
- b) As an ICT Project manager and a team leader in an upcoming project at Open AI Ltd, you have had your initial meeting with the sponsor of your project where you were given the Term of Reference (Project Brief) and asked to produce your estimates of time and cost of the project. Describe in detail (analysing their differences) three cost estimating methods that could be used.  
(6marks)
- c) Describe **THREE** major challenges project managers face during ICT project implementation and suggest solution to address them.  
(6 marks)

### QUESTION THREE (20 MARKS)

a) It is important to ensure effective communication and collaboration in ICT project management. Discuss four ways how project managers can ensure clear communication and foster collaboration among team members in a virtual on distributed environment.

(8 marks)

(b) Evaluate the effectiveness of Risk Mitigation Strategies in ICT projects. Provide an example of how any three risk mitigation strategies can be applied to a real world scenario. (7 marks)

(c)

(i) Distinguish between quality Assurance and quality control in a project management work.

(2 marks)

(ii) State three possible ways of enforcing quality and standards in the project management.

(3 marks)

### QUESTION FOUR (20 MARKS)

a) Discuss the role of a project charter in ICT project management why is it crucial for the success of a project

(4 marks)

b) Discuss any THREE major risks associated with ICT project and propose strategies for mitigating them

(6 marks)

c) Given the schedule below

Activity	Predecessor	Duration (Days)
A	-	1
B	-	2
C	-	3
D	A	4
E	B	5
F	B	4
G	C	6
H	D,E	6
I	G	1
J	F,I,H	3

(i) Design a network diagram using a antical path analysis method

(3 marks)

(ii) Identify the antical path

(1 mark)

(d) Using relevant examples, analyze the impact of emerging technologies such as AI, Block Chain, and IoT on ICT project management.

(6 marks)