



# **MURANG'A UNIVERSITY OF TECHNOLOGY**

## **SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY**

### **DEPARTMENT OF INFORMATION TECHNOLOGY**

#### **UNIVERSITY ORDINARY EXAMINATION**

**2018/2019 ACADEMIC YEAR**

#### **FOURTH YEAR FIRST SEMESTER EXAMINATION FOR, BACHELOR OF SOFTWARE ENGINEERING BACHELOR OF BUSINESS INFORMATION TECHNOLOGY**

**SIT 401 – ICT PROJECT MANAGEMENT**

**DURATION: 2 HOURS**

**DATE:**

**TIME:**

#### **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) (i) Define the term project management (1mark)  
(ii) Explain the importance of carrying out monitoring and control on an ICT project (2marks)
- b) For the following project, compute the expected project completion time, variance and standard deviation (6marks)

Task	Optimistic time(weeks)	Most likely time(weeks)	Pessimistic time(weeks)
A	2	3	10
B	3	3	3
C	5	6	7
D	10	12	20

- c) A contractor developed the following work break down structure for a domestic broiler installation project

Task	Description	Predecessor	Duration
A	Prepare site for Brioler	NONE	5
B	Install broiler mounting plate	A	5
C	Install broiler unit	B	2
D	Fit wiring conduit	A	2
E	Install copper water pipes	A	5
F	Fit the electrical cables	D	3
G	Connect copper water pipes to water mains	C,E	2
H	Connect Electrical cables to power suuply	C,F	2
I	Test electrical connection	H	1
J	Test hot water system	G,I	5

Required;

- i. Draw a Network diagram for the WBS clearly indicating the start and latest time for each task (5marks)
- ii. Derive the projects critical path (4marks)
- d) (i) Describe Three differences between quality assurance and quality control (3marks)  
(ii) Explain goal of ISO 9000 (2marks)
- e) Describe Three ways in which the success of a system can be measured after it has become operational (3marks)

- f) Discuss Four key components of a project communication plan (4marks)

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

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

- a) During the life cycle of a project, the project manager may have to deal with circumstances that necessitate changes to the plan. Describe the essential components of a software configuration change control procedure (8marks)
- b) (i) Explain the importance of resource leveling (2marks)  
(ii) Describe two technique used in resource leveling (2marks)
- c) Assume you are a software project manager, the team working under your leadership is going slow, getting behind schedule, results are delivered late, and staffs have to be pushed to work. What do you think could be the problem(s) , the causes of the problem and how you could solve such a problem (6marks)

### **QUESTION THREE (20 MARKS)**

- a) Explain the three quality management concepts (6marks)
- b) (i) Explain the activities of configuration management process (10marks)  
(ii) Outline four benefits of configuration management (4marks)

### **QUESTION FOUR (20 MARKS)**

- a) You have been asked to assemble a project team for a development project. You will require analysis, programmers and testers. There is an IT Department at the company doing maintenance and support. You have been told that you will be able to get about half the team you require from there and the other half will be hired from outside
- i. Describe Five key steps in the recruitment process from a staffing vacancy being identified to putting a new effective team member in place (10marks)
- ii. List Five factors you would take into account when deciding who should do which task in a plan (5marks)
- b) Describe any Five project management performance metrics (5marks)