



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE BACHELOR OF SCIENCE IN INFORMATION
COMMUNICATION TECHNOLOGY
3RD YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: ICT 3311
COURSE TITLE: ICT PROJECT MANAGEMENT
EXAM VENUE: **STREAM:**
DATE: **EXAM SESSION:**
TIME: 2.00 HOURS

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other three 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**

QUESTION ONE 30 MARKS

MediSoft is a software production company specialising in healthcare software. It has some 110 developers working on the maintenance of existing products and the development of new applications, particularly in the area of office communications and NHSNet communications. The main products are a clinical audit system, an intensive care system, a blood bank control system and several varieties of community care systems. New products supporting GP networks and links to hospitals are being developed. Also Internet based software for supporting hospital at home initiatives is being considered. As part of a productivity program, software reuse has been introduced. During the last two years MediSoft has researched the idea of reuse and identified some reusable components by looking at current products: 250 modules of C codes, each one is about 30 lines of logic and carries out one functional task. Most of these modules relate to technical issues like file manipulation. Medisoft have 3 million lines of assembler code (you could call this legacy code) which may be reusable. There is a data model of 220 entities for the patient management domain.

A year ago MediSoft decided to migrate to OO and write all new products in C++. They bought 300 classes to help in the building of GUI and all new classes are added to the library. Medisoft have tested the use of C++ on a small pilot project and want to find a way of introducing reuse procedures on all projects. This will be difficult because we have been used to each person originating all his/her code.

A reuse process model is required with the following functions:

- i. Create Reusable Assets.
- ii. Support Reusable Assets
- iii. Use Reusable Assets
- iv. Manage Reusable Assets

Required

- a) Identify roles in reuse management
(9 marks)
- b) Explain how you will encourage people to program for reusability and also to use existing assets in their programs.
(9 marks)
- c) Using appropriate examples, explain how you would evaluate reusable assets
(12 marks)

QUESTION TWO 20 MARKS

| Activity | Duration | Depends on |
|----------|----------|------------|
| A | 7 | - |
| B | 6 | - |
| C | 9 | - |
| D | 4 | A,B |
| E | 7 | B,C |
| F | 4 | C |
| G | 7 | D,E,F |

| | | |
|---|---|-----|
| H | 8 | E |
| I | 8 | F |
| J | 4 | H,I |
| K | 3 | I |

Using an appropriate model, calculate the total duration of the project, and identify the critical activities.

(20 marks)

QUESTION THREE 20 MARKS

- a) Discuss how PRINCE2 can assist the project manager in managing large projects, illustrating your answer with reference to at least 3 PRINCE2 processes and project organisation.

(12 marks)

- b) Discuss how the introduction of PRINCE2 to an organization might be successfully managed, with particular reference to overcoming resistance.

(8 marks)

QUESTION FOUR 20 MARKS

- a) Explain how the IT manager might approach definition of the new “roles” he would like to bring into the IT function, before starting the recruitment process.

(8 marks)

- b) Identify potential problems he might have to deal with in absorbing the new staff into the existing IT function, and discuss how he could try to minimize the impact of these.

(12 marks)

QUESTION FIVE 20 MARKS

- a) In putting together a project team of IS professionals, identify the issues you would want to address, taking into account the mix of skills required, personalities, integrating personnel who have just been recruited, but also any other issues you feel are relevant.

(12 marks)

- b) Explain how the People Capability Maturity Model (P-CMM) can be used to develop the capabilities and performance of IS/IT staff.

(8 marks)