



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

COURSE CODE: IIT 3318
COURSE TITLE: 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

You are manager of 30 IS staff in a financial services company based in west London, mainly analysts/programmers, with some junior staff who do programming only. Most of the younger staff are qualified to degree level in a computing discipline. At present there are 3 projects, each with its manager, to which most staff are directly allocated on a full-time basis. There are a small number of technical experts (e.g. nets & comms.) who support the project teams.

The salaries are competitive, even by London standards, and other benefits include cheap mortgage loans, non-contributory pensions, a subsidised staff canteen, and company cars for 4 of the more senior staff. There are 5 weeks vacation, plus bank holidays, for all staff. Flexitime is practised, and junior grades are paid overtime when they work it. Staff are subject to appraisal every 12 months, usually followed by a salary increase, and/or promotion. Staff turnover has been low in the last couple of years.

Currently development is carried out in DB2, employing SSADM as the systems development methodology. You intend to re-develop a key (but aging) application using object-oriented techniques, employing Oracle, ASP, Java, Vbasic, supported by CASE technology. There is no previous in-house usage of O-O design or programming.

You intend to staff the new team with 8 of your better people from the existing teams, and you hope to make use of the younger people who have experience of O-O techniques at University. Also, you are considering whether to recruit several people with expertise and experience in O-O, and perhaps an O-O project manager, to “jump-start” the project. You have a need for 4 new staff anyway. The present project managers are all over 35, and have degrees in maths, business studies, and accountancy respectively.

It is likely that the new project will require extensive overtime to be worked, once it starts, in order to meet tight deadlines, although management recognize this may make it difficult to minimize costs.

Required

Discuss the issues you face in managing the human resources to staff the team, bearing in mind the following:

- a) Morale and motivation of all staff (8 marks)
- b) Retaining existing staff (8 marks)
- c) Recruiting appropriate people (8 marks)
- d) Team-building (6 marks)

QUESTION TWO 20 MARKS

Activity	Duration (days)	Depends on
A	7	-
B	6	A
C	9	A
D	4	B
E	7	B,C
F	8	D
G	4	D, E
H	7	D, E
I	8	G, H
J	4	G

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

(20 marks)

QUESTION THREE 20 MARKS

- a) Discuss the pitfalls which an organisation might face in using PRINCE2 for the first time, and how it could improve the chances of success.

(8 marks)

- b) Explain why estimation of the effort involved in systems building activities, especially programming, is particularly difficult at the start of a project, and outline an approach which might increase the accuracy of estimates.

(12 marks)

QUESTION FOUR 20 MARKS

Discuss how the Critical Path Method (CPM) can be used to rigorously plan and control a project. Comment particularly on:

- i. The calculation of the total project duration
- ii. Identification of the critical path
- iii. Activity float

Also note what may happen as the project proceeds.

(20 marks)

QUESTION FIVE 20 MARKS

- a) There are many examples of information systems development projects which are failures. Outline reasons why projects can fail, and highlight the characteristics of projects which raise the risk of failure.

(10 marks)

- b) As the new Software Quality Manager for a major airline, describe your main responsibilities, and explain how you would manage the implementation of a quality management system in the systems and programming department.

(10 marks)