



CICT PART III SECTION 6

INFORMATION SYSTEMS PROJECT MANAGEMENT

FRIDAY: 24 May 2019.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

**QUESTION ONE**

- (a) Summarise two activities involved in the closing of an information systems project. (2 marks)
  - (b) Suggest four strategies to improve information system (IS) project communication management. (4 marks)
  - (c) In each case, explain two mitigation strategies for technical risks and cost risks for an IS project. (4 marks)
  - (d) Assess four best practices in procurement management of IS projects. (4 marks)
  - (e) Describe two disadvantages of using “discounting techniques” in analysing financial benefits of IS projects. (2 marks)
  - (f) Discuss four factors necessitating the need for IS project human resource management. (4 marks)
- (Total: 20 marks)**

**QUESTION TWO**

- (a) Using an illustration, describe two types of task dependencies in IS project time management. (4 marks)
  - (b) Suggest four ways of performing effective change control in IS projects. (4 marks)
  - (c) Assess four ways to develop a work breakdown structure (WBS) in IS projects. (4 marks)
  - (d) Examine two tools used for “quality assurance” in IS project quality management. (4 marks)
  - (e) Describe two uses of software in IS project quality management. (2 marks)
  - (f) Explain the term “lean approach” in the context of quality improvement in IS projects. (2 marks)
- (Total: 20 marks)**

**QUESTION THREE**

- (a) Project completion review will examine the lessons to be learnt after the project has been implemented.  
**Required:**  
 Summarise four techniques used for project completion review. (4 marks)
- (b) The highlight report is PRINCE 2’s main ongoing reporting mechanism prepared by the project manager and supplied to the project board and project assurance team.  
**Required:**  
 Describe four contents of the highlight report. (4 marks)
- (c) Using an example, explain an “overhead task” and suggest how it could be incorporated into a schedule. (2 marks)
- (d) The table below contains data on a project’s task, duration (days) and predecessor:

**Table 1**

Task	A	B	C	D	E	F	G	H	I	J
Duration (days)	5	8	3	4	5	7	6	8	6	5
Predecessor	-	A	B	A	C	C	D,E	F	G	H, I

Using the information in table 1 above:

- (i) Draw a network diagram. (5 marks)
  - (ii) Determine the critical path of the project. (2 marks)
  - (iii) Compute the project's duration. (1 mark)
  - (e) Explain the expected monetary value (EMV) of an opportunity as used in project management. (2 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) Assess four productivity drivers you might consider when estimating the effort required to complete an information systems project. (4 marks)
- (b) Your company has been contracted to develop a software for a multinational bank. The software is to be rolled out in the next ten months. As a project manager, you have identified a number of risks. The key risk is that a major holiday period is due at a critical stage of the project when many staff will be requesting leave. Therefore there is a risk that shortages of staff will cause delay.

**Required:**

Propose three appropriate actions that you could take to deal with the risk of possible staff shortages. (3 marks)

- (c) Cost monitoring is used in progress monitoring and control. Explain the following terms as used in project monitoring:
    - (i) Planned value (PV). (2 marks)
    - (ii) Actual cost (AC). (2 marks)
    - (iii) Earned value (EV). (2 marks)
  - (d) Suggest two features or business requirements that drive projects. (4 marks)
  - (e) Summarise activities involved in responsibility assignment matrix (RAM). (3 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) You have a penalty of Sh.10 per day if your project is not ready in thirteen days. There is an extra profit of Sh.1.00 per day if you advance its closing date (if you reduce from thirteen days).

The costs involved, predecessors, duration and maximum crash time in days are indicated in the table below:

Activity	Normal duration	Cost normal Sh.	Maximum crash time in days	Crash cost per day	Predecessor
A	4	1,000	3	500	
B	7	2,000	4	500	
C	5	1,200	4	300	
D	6	1,100	5	500	A
E	3	500	2	150	B
F	11	2,000	6	1,000	C
G	4	200	3	100	F
H	3	100	1	50	D, E

**Required:**

- (i) Construct an activity on arrow (AOA) PERT network using the above data. (6 marks)
  - (ii) Determine the final preferable project length in days. (4 marks)
  - (iii) Compute the total cost of your solution. (2 marks)
  - (b) Examine two scope planning tools and techniques used in IS projects. (4 marks)
  - (c) Assess how project time management aids in the scoping process. (4 marks)
- (Total: 20 marks)**