

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF MASTER OF SCIENCE
IN COMPUTER SCIENCE Y1S1**

COSC 831: SYSTEMS PROJECT MANAGEMENT

STREAM: MSC (COMP. SCI) Y1S1

TIME: 3 HOURS

DAY/DATE: WEDNESDAY 07/04/2021

8.30 A.M. – 11.30 A.M

INSTRUCTIONS: Answer Question ONE and any other TWO questions

Question One (30 marks)

- (a) Justify why a project plan ought to change as a project progresses. (3 marks)
- (b) Discuss the relationships between the triple constraints of a systems project. (3 marks)
- (c) Discuss two possible effects of accepting additional work that increases the scope of the project. (4 marks)
- (d) If you have been assigned the role of a project manager in a network infrastructure upgrading for computer lab 4:
 - (i) Discuss how you would present the scope of the project to all the stakeholders. (4 marks)
 - (ii) Explain four roles you will assume as the project manager. (4 marks)
 - (iii) Discuss four activities you would oversee to ensure good quality in the upgrade of the infrastructure. (4 marks)
- (e) Explain four problems associated with cost estimations in a software project. (4 marks)
- (f) Suppose you have been contracted to develop a students' management software system for Chuka University. In the project, you realise you need to procure server computers for database and the software system installation. Discuss how you would go about acquiring the server computers. (4 marks)

Question Two (15 marks)

- (a) Since every project has risks to manage, in the case of Chuka University ERP system, discuss the process of managing risks. Appropriate illustrations may be used to clarify the identified process. (8 marks)
- (b) Suppose you are a project manager and you've ordered ten new servers. The servers arrive one at a time and your team unpacks each one and begins to install them. After five of the servers are set up and installed, each one begins to fail because of a manufacturing problem. The vendor agrees to replace them immediately and assures you that it won't happen again, but you've spent half of your budget setting up and installing defective servers. You have a choice of reinstalling the new servers whereby your project will be late and use up your entire project's reserve account, or subcontracting with another IT consulting firm that will ensure that the project is delivered on time but will exceed your reserve by 100 percent. How would you handle this situation? Discuss. (7 marks)

Question Three (15 marks)

- (a) Estimating the cost of a software project/system is inherently a risky task, irrespective of the technique being used. Suggest and discuss five ways in which the risk in cost estimation can be reduced. (5 marks)
- (b) In computing projects management, one of the major issues is change management. All projects and the product under development are prone to changes. Identify and discuss five factors you would consider when evaluating change in proposals for a system project. (5 marks)
- (c) Discuss five factors that would influence the quality of a software product. (5 marks)

Question Four (15 marks)

- (a) Effective communication in IT projects is a major booster to their success. Discuss how poor communication can contribute and eventually lead to project failure. (5 marks)
- (b) Most IT projects just like any project suffer inadequate resources. Given strict deadlines discuss five measures you would take to ensure that the project is completed as per the deadlines. (5 marks)
- (c) Alice, an experienced project manager, understands the importance of creating a cohesive group. She is managing a project on developing a new product on assistive technology for the elderly. Discuss five strategies that Alice can employ to nurture "team spirit" in the project. (5 marks)

Question Five (15 marks)

- (a) Fixed-price contracts, where the contractor bids a fixed price to complete a system development, may be used to move project risk from client to contractor. If anything goes wrong, the contractor has to pay. Suggest how the use of such contracts may increase the likelihood that product risks will arise. (5 marks)
- (b) Suppose a banking group is considering the purchase of an enterprise software package that would integrate well with online banking requirements. This application will be critical to the success of the bank projects and operations. The project is a mission critical application for the organization. As a project manager in the banking Group Company how could you ensure that the company does not purchase a low-quality software solution? (5 marks)
- (c) In light of outsourcing resources for a project, discuss five errors that you need to be wary of in order to guarantee success of the project. (5 marks)
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