THE OPEN UNIVERSITY OF SRI LANKA DEPARTMENT OF COMPUTER SCIENCE B.Sc. DEGREE PROGRAMME 2023/2024

FINAL EXAMINATION

CSU5300: IT PROJECT MANAGEMENT DURATION: TWO HOURS ONLY (2 HRS)

Date: 25th March, 2024

Time: 1:30pm - 3.30pm

Answer Four Questions Only.

# Use below project related details where applicable in each question:

XYZ Corporation, a multinational manufacturing company, has decided to implement a comprehensive Enterprise Resource Planning (ERP) system to integrate its business processes, streamline operations, and improve decision-making capabilities. The ERP system will include modules for finance (FIN), human resources (HR), supply chain management (SCM), manufacturing (MFT), and customer relationship management (CRM). The project team comprises IT specialists, business analysts, process engineers, and representatives from various business units.

(Useful formula: SPI=EV/PV, CPI=EV/AC)

# Q1

- I. Why is it important to define objectives, scope, and stakeholders' roles / responsibilities during the initiation phase of a project?
- II. How do project managers monitor and control project performance during the project execution phase. Consider the tools and techniques that are commonly used to track progress, manage risks, and address issues.
- III. What steps are typically taken during the project closure phase, and why is it important to conduct a post-project review to evaluate project success, document lessons learned, and facilitate knowledge transfer for future projects?
- IV. Deriving the WBS is important.
  - a. How does the creation of a work breakdown structure (WBS) contribute to effective project planning?
  - b. Draw the WBS for the ERP implementation project considering the modules (FIN, HR, SCM, etc.) proposed?

### $\mathbf{Q2}$

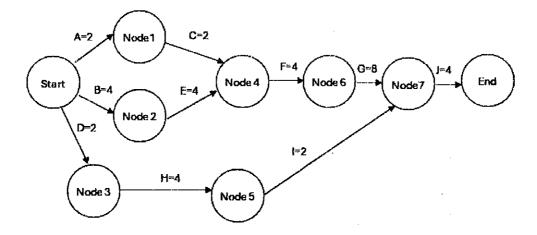
- I. What is Project Integration Management, and why is it essential for project success?
- II. What is the purpose of the project charter in Project Integration Management?
- III. Describe the process of developing the project management plan in Project Integration Management.
- IV. Change-control in project management is important.
  - a. What is the purpose of project change control in Project Integration Management?
  - b. In the case of ERP implementation project, list scenarios where change control would be necessary considering changes in scope, schedule, budget and quality aspects of the project.

#### **Q3**

- I. What is the purpose of Project Cost Management?
- II. What are the key processes involved in Project Cost Management?
- III. Project team decided to use "definitive estimate". What are the advantages of selecting it?
- IV. By the end of week 2 in the ERP implementation project, it was identified that the Earned Value (EV) is 5,000, with a Planned Value (PV) of 10,000 and an actual cost of 20,000.
  - a. Why earn value management is important for cost control.
  - b. Calculate SPI, CPI and discuss the ERP implementation project performance in terms of schedule (completion) and cost (budget) aspects.

# Q4

- I. What is the purpose of Project Time Management?
- II. What are the five (5) key processes involved in Project Time Management?
- III. What is the process which supports identifying "milestones"? briefly explain.?
- IV. In the case of ERP implementation project, below is the AOA diagram for project activities (A J) and time estimate of each activity in weeks. (i.e A=2 means activity "A" duration is 2 weeks)



- a. Name the critical path and project completion timeline.
- b. What is a slack activity? Name the slack activities according to the AOA diagram.

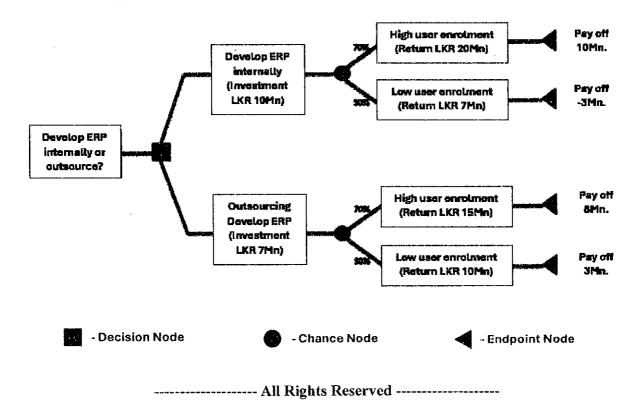
### **Q5**

- I. What is the purpose of Project Risk Management?
- II. How does the "Perform Qualitative Risk Analysis" process contribute to project risk management?
- III. What is the purpose of the Plan Risk Responses process? Explain based on positive and negative risk response strategies.
- IV. Considering XYZ Corporation's ERP implementation project,
  - a. Identify five (5) possible risks that can impact the project schedule, cost or quality.
  - b. Draw a simple probability/Impact matrix and mark the risks identified on it considering the probability and severity.

# **Q**6

- I. What is the purpose of Project Procurement Management?
- II. What are the advantages in "Outsourcing"?
- III. Different types of contracts available in procurement management. Name two (2) such contracts and explain them.
- IV. Considering XYZ Corporation's ERP implementation project, below decision tree has been derived by the project team.

- a: Derive the Expected Monetary Value for developing internally or outsourcing based on provided probability of risk for user enrolments. (i.e. 70% high enrolment and 30% low enrolment)
- b. Conclude the decision for the procurement way forward whether to outsource or not?



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