



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2024 – 2nd Year Examination – Semester 3

IT4306 – Information Technology Project Management
Part 2 - Structured Question Paper

(ONE HOUR)

To be completed by the candidate

BIT Examination Index No:

Important Instructions:

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- This paper has **2 questions** and **4 pages**.
- **Answer all questions.** All questions carry **equal** marks.
- **Write your answers** in English using the space provided **in this question paper**.
- Do not tear off any part of this answer book.
- Under no circumstances may this book, used or unused, be removed from the Examination Hall by a candidate.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.
- All kinds of electronic devices including calculators are **not** allowed.
- *All Rights Reserved.*

Questions Answered

Indicate by a cross (×), (e.g. ☐) the numbers of the questions answered.

To be completed by the candidate by marking a cross (×).	Question numbers	
	1	2
To be completed by the examiners:		

- 1) (a) A software company is considering two alternatives for a new mobile application project. The project manager estimates that implementing an innovative AI feature has:

- 60% probability of generating a profit of 1,000,000 LKR
- 40% probability of not generating any profit.

Two project sponsors are willing to invest in the opportunity as below:

- Sponsor A is willing to invest only 500,000 LKR in the feature.
- Sponsor B is willing to invest up to 700,000 LKR in the feature.

Using the expected monetary value (EMV) of the new AI feature, comment on the risk preference of the two investors.

(50 marks)

ANSWER IN THIS BOX

$EMV = (0.6 \times 1,000,000) + (0.40 \times 0) = 600,000 \text{ LKR}$ (20 marks)

Risk for A = $EMV - 500,000 = 600,000 - 500,000 = 100,000 \text{ LKR}$ (05 marks)

Risk for B = $EMV - 700,000 = 600,000 - 700,000 = -100,000 \text{ LKR}$ (05 marks)

A values the project benefit below its EMV and prefers safer investments. A is Risk Averse (10 marks)

B values the opportunity above its EMV and is willing to take additional risk potentially for higher returns. B is risk seeking (10 marks)

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There is no handwriting or other markings on the paper.

- 2) (a) A software company is developing an Online Learning Management System (LMS). The project manager has identified the following activities and dependencies.

Activity	Duration	Relationship
A – Requirements Gathering	4 days	None
B – System Design	3 days	Can start only after A is completed
C – Database Setup	2 days	Can start when B starts
D – UI Development	5 days	Can start only after B is completed
E – Backend Development	6 days	Can start when D starts
F – Integration Testing	3 days	Must finish when or after E finishes
G – User Training Preparation	2 days	Cannot finish until F has started

Calculate the earliest start and finish times for all activities, draw the Gantt chart, indicate all dependencies clearly, and determine the project completion day

(50 marks)

ANSWER IN THIS BOX**(40 MARKS)**

Day ->	1	2	3	4	5	6	7	8	9	10	11	12	13
A													
B													
C													
D													
E													
F													
G													

PROJECT COMPLETION IS DAY 13 (10 MARKS)
