



RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

BSc (Three Year) Degree in Information Communication Technology

Third Year Semester I Examination, October/November 2015

ICT3205 – INFORMATION TECHNOLOGY PROJECT MANAGEMENT

(Theory Paper)

Time allowed: 2 hours

Examination Index No: _____

Important Instructions:

- This paper has 4 questions in 14 pages.
- Answer all questions (25 marks each).
- Write your answers in English using the space provided in this question paper.
- Do not tear off any part of this question paper.
- Note that questions appear on both sides of the paper.
- If a page is not printed, please inform the supervisor immediately.

To be completed by the examiners:

	Question numbers				Total Marks
Questions	1	2	3	4	
Marks					

Question 01

- i. What is a deliverable in a software project? (1 Mark)

- ii. State why following project management activities are important for an IT Company (3 Marks)

Staffing:

Directing:

Monitoring:

- iii. Why reference management tools are important in technical writing? (4 Marks)

- iv. What is project proposal? (2 Marks)

v. How does following factors make problems in software projects? (5 Marks)

Lack of standards

Changing software environment

Deadline pressure

Inadequate specification of work

Lack of communication between users and technicians

- vi. Sketch a diagram to depict the steps in project management. (10 Marks)



Question 02

Answer questions from (i) to (v) using the Work Breakdown Structure given in Figure 1.

Activity	Duration (weeks)	Precedence
A: Requirement Analysis	5	
B: Coding	3	A
C: System Design	3	A
D: Documentation	3	B
E: Component Integration	3	B,C
F: Testing	6	D,E

Figure 1 - Work Breakdown Structure

- i. Model the **Network Diagram** for Work Breakdown Structure given in Figure 1. Clearly label the activity nodes. (3 Marks)

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- ii. Find the **Earliest Start/End dates** and **Latest Start/End dates** for each activity. (6 Marks)

Activity	Earliest Start Date	Earliest End Date	Latest Start Date	Latest End date
A				
B				
C				
D				
E				
F				

- iii. Find the **Activity Float** for each activity in the Network diagram which you modelled in Question 2 part (i) and state the **Critical Path** of it. (4 Marks)

Activity	Activity Float
A	
B	
C	
D	
E	
F	

Critical Path

- iv. Model the Gantt chart for the work break down structure depicted in Figure 1. Clearly indicate the dependencies in your Gantt chart. (5 Marks)

Weeks 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17																	
A: Requirement Analysis																	
B: Coding																	
C: System Design																	
D: Documentation																	
E: Component Integration																	
F: Testing																	

- v. Set two milestone points in the Gantt chart which you modelled in Question 2 part (iv) and state two deliverables that can be produced as outcomes at those milestones. (2 Marks)

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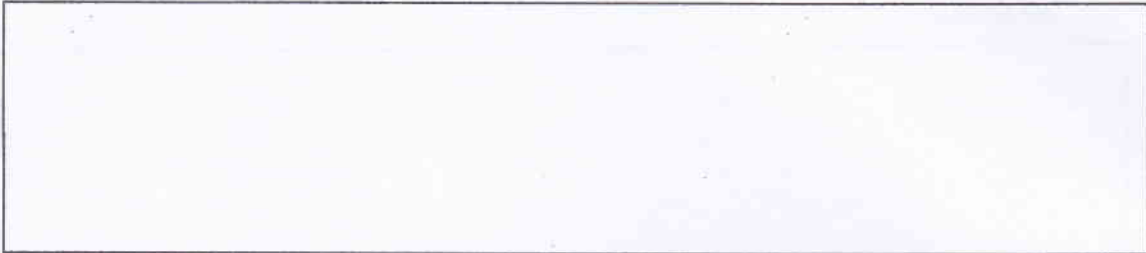
- vi. What will happen if 2 weeks are allocated for activity **B: Coding** and 4 weeks are allocated for activity **C: System Design** at the beginning of project scheduling? (2 Marks)

- vii. How will the change described in Question 2 part (vi) affect the final software which deployed in this project? (2 Marks)

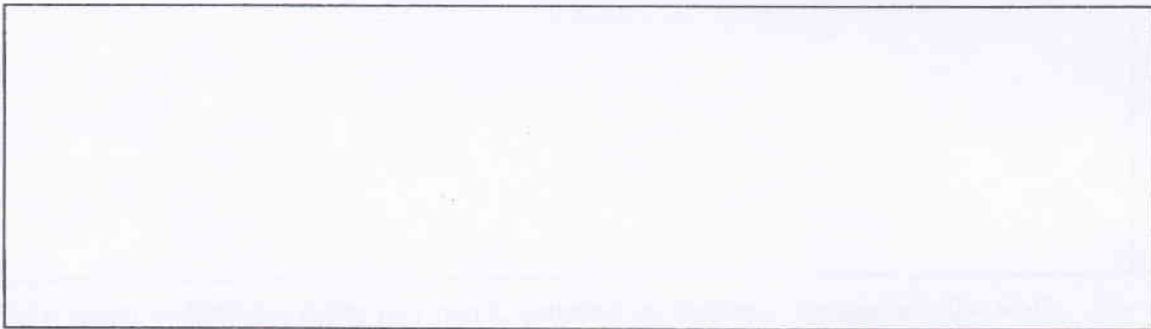
- viii. Write an activity that can apply to minimize the critical path of a project. (1 Mark)

Question 03

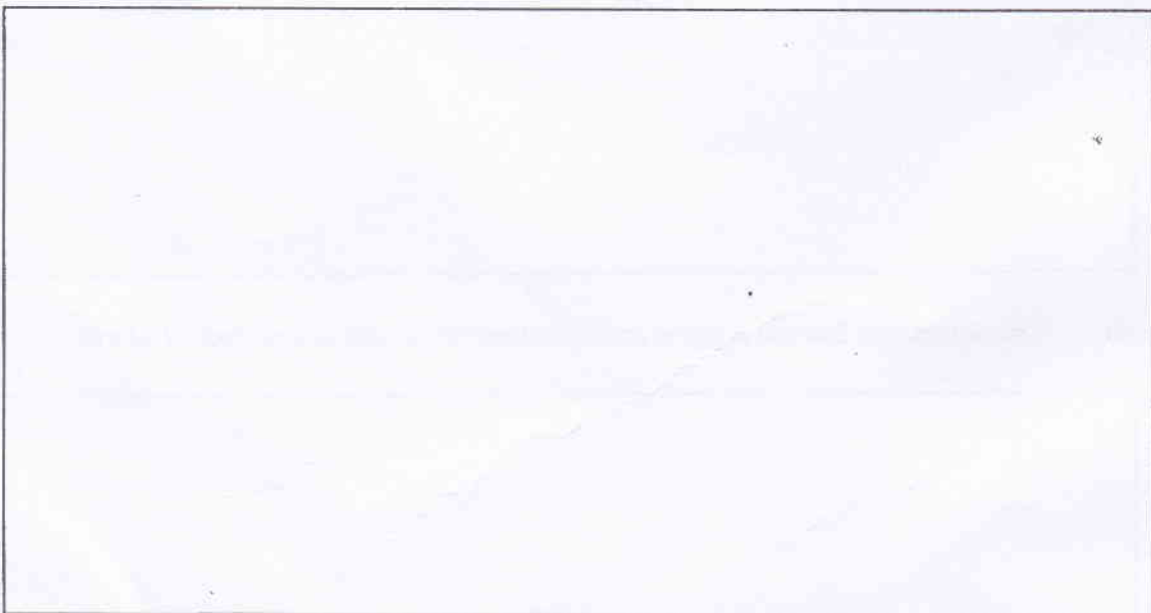
- i. What is resource leveling in project management? (2 Marks)



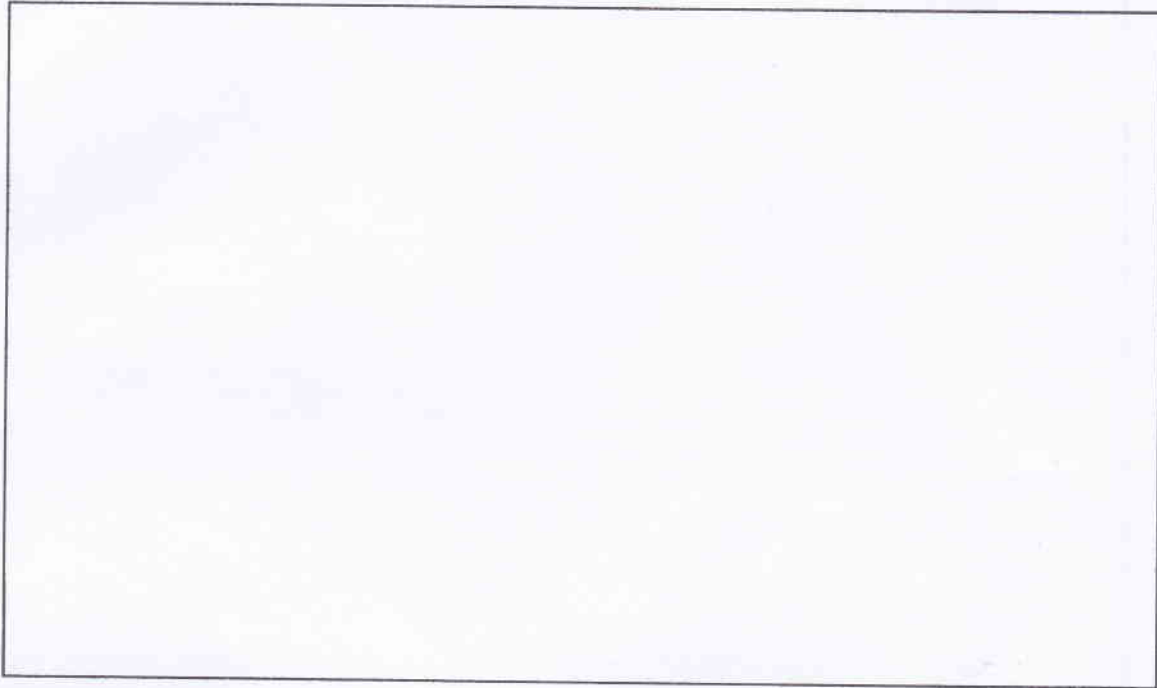
- ii. How are resource histograms useful in software project management? (2 Marks)



- iii. Justify the following statement **“Power is the potential ability to influence the behavior to get people to do things.”** (4 Marks)



- iv. Sketch a diagram of the **Work Definition and Assignment Process**. Clearly label the inputs process output of each step of the process. (5 Marks)



- v. Discuss about Covey's third habit: "**Put first thing first**" with respect to following topics. (6 Marks)

What does "Put first thing first" mean by with respect to the software project management

Why is this habit important to Project Manager?

Why is this habit important to project time management?

- vi. Describe the main steps of project cost management process. Clearly state the input and output of each step of the cost management process. (6 Marks)

Question 04

- i. In software projects, which activities require high prioritized monitoring? (2 Marks)

- ii. State four good practices that we need to follow during a meeting. (4 Marks)

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- iii. State four major activities that must be performed in software project documentation. (2 Marks)

- iv. Briefly explain how you will identify the effect of following risks and suggest a minimization method for each of them. (8 Marks)

Significant changes in user requirements

How does it effect on project?

Minimization Method:

Loss of power or internet connection at key roll-out, demo or training events

How does it effect on project?

Minimization Method:

Poor intra-project communications

How does It effect on project?

Minimization Method:

Inadequate training

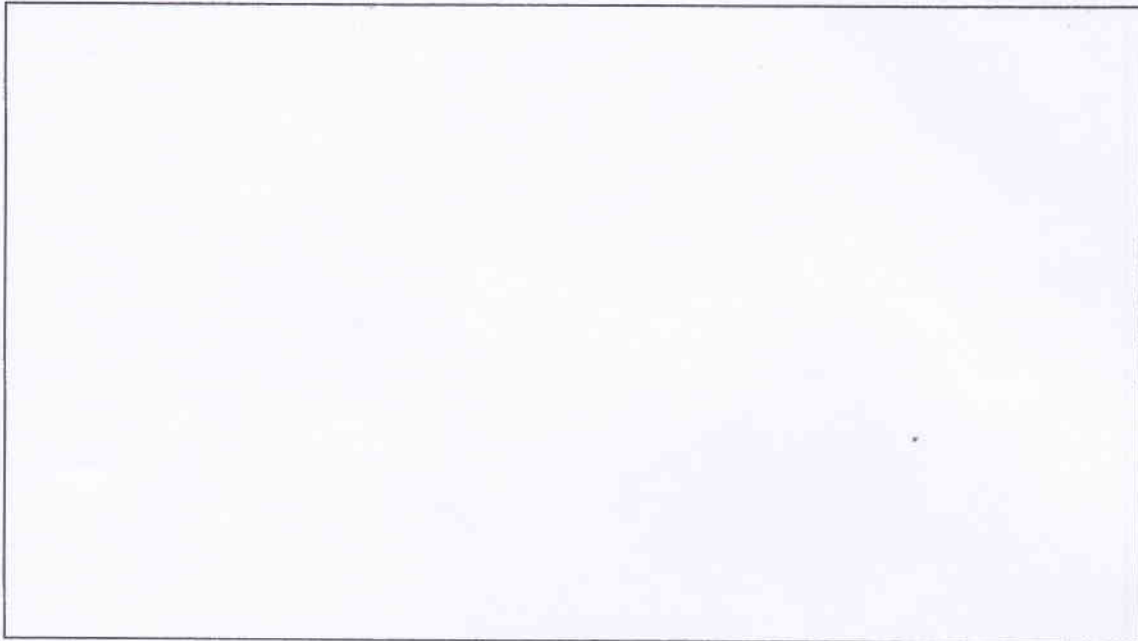
How does It effect on project?

Minimization Method:

- v. Discuss about incremental development in Agile software development using a diagram.
(5 Marks)



- vi. Justify following statement using suitable examples **"A risk is an uncertain event or condition which causes either a negative or a positive effect on one or more project objectives"** (4 Marks)



***** END *****