UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2018 – 2nd Year Examination – Semester 4

IT4205: IT Project Management

Part 2 - Structured Question Paper

29th September, 2018

(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 **02 questions** on **04 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.
- **Non-programmable calculators are allowed.**

Questions Answered

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

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

1) (a) Consider the following scenario:

The electronic identification project of Synex Industries was estimated to take 2 months to complete at a cost of 300,000 LKR per month with expected completion of 50% of the task per month. However, the project took 3 months to complete at a total cost of 1,000,000 LKR. The costs for the first two months was 300,000 LKR whilst the unbudgeted last month cost 400,000 LKR. The work completion for each month was 50%, 30% and 20% respectively.

Using the values provided above compute the following.

1. What is the Budget at Completion (BAC)?

[01 mark]

ANSWER IN THIS BOX

300,000 + 300,000 = 600,000 LKR

2. Assuming that the work to be completed is equally distributed among the months, what is the planned value (PV) of the project for each month?

[02 marks]

ANSWER IN THIS BOX

Months 1 and 2 both have a PV of 300,000 LKR each

3. Compute the expected value (EV) for each month in the project up until completion.

[05 marks]

ANSWER IN THIS BOX

Month 1 = 300,000 LKR (planned work is 50% for the same cost)

Month 2 = 600,000 LKR x 0.8 = 480,000 LKR

Month 3 = 600,000 LKR x 1.0 = 600,000 LKR

4. Compute the cost performance index (CPI) for each month in the project up until completion.

[06 marks]

ANSWER IN THIS BOX

CPI = EV/AC

Month 1 CPI = 300,000/300,000 = 1.0

Month 2 CPI = 480,000/600,000 = 0.8

Month 3 CPI = 600,000/1,000,000 = 0.6

5. Compute the schedule performance index (SPI) for the first two months.

[02 marks]

ANSWER IN THIS BOX

SPI = EV/PV

Month 1 SPI = 300,000/300,000 = 1

Month 2 SPI = 480,000/600,000 = 0.8

6. Using the CPI and SPI computed above, comment on the direction of the project for the three months.

[06 marks]

ANSWER IN THIS BOX

First month project runs to schedule and on budget.

At the end of the second month the project is behind schedule.

At the third month project is over budget and behind schedule.

(b) What are the three types of cost estimates?

[03 marks]

ANSWER IN THIS BOX

1. Rough Order of Magnitude
2. Budgetary
3. Definitive

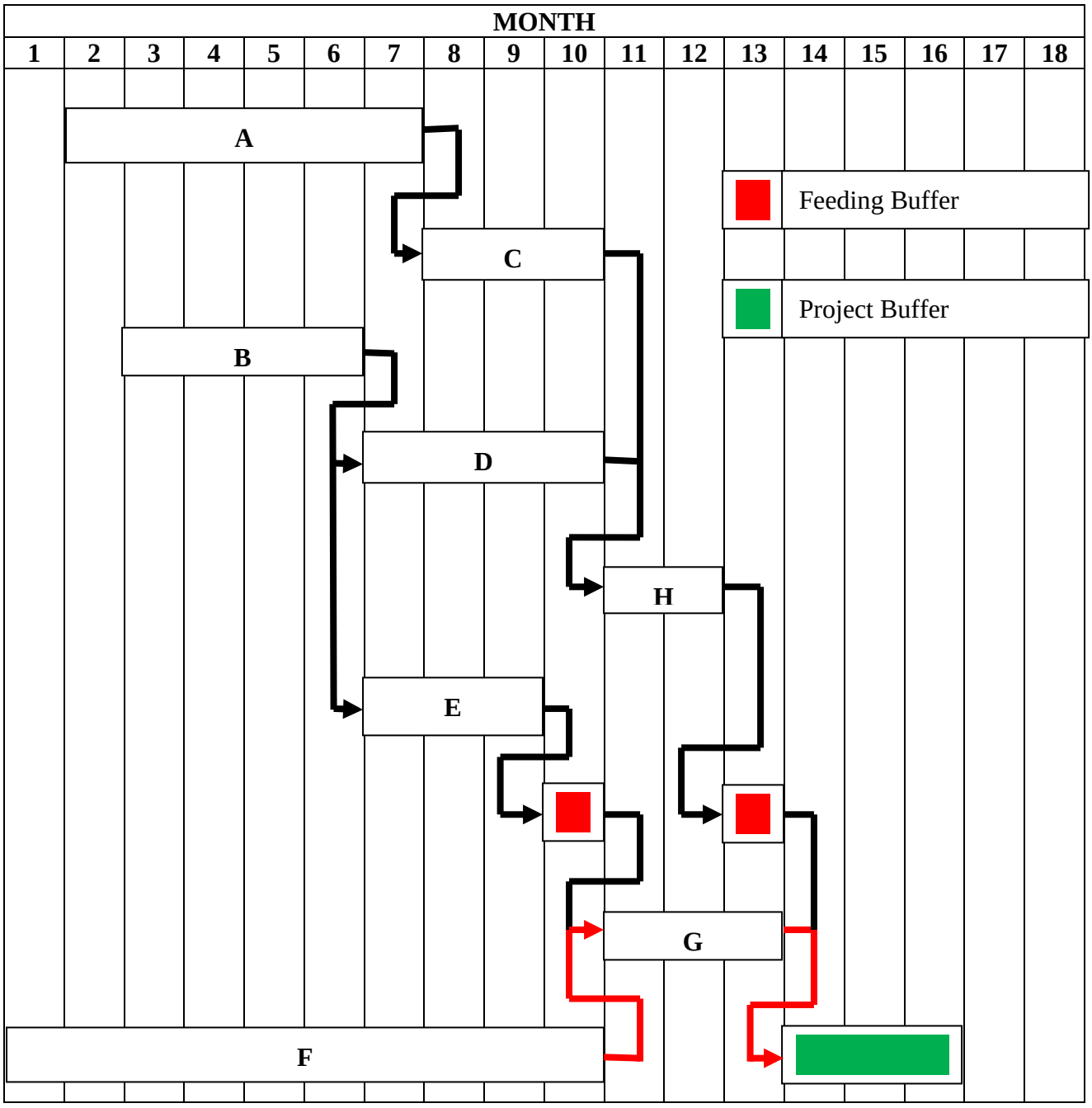
2) Consider the following scenario:

A project consist of eight tasks labeled from A to H. Their task dependencies, the duration (in months) to complete each task and the time buffer (comfort zone) for each task is given in the table below

Task	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
Duration	6	4	3	4	3	10	3	2
Comfort Zone	2	1	0	1	1	5	1	0.5
Precedent	-	-	A	B	B	-	E, F	C, D

Using the information in the above table draw a Gantt chart using the critical chain planning approach. Use the swim lanes given below to draw the Gantt chart. Clearly mark the feeding buffers and the project buffer including the critical chain.

[25 Marks]



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