



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2013/2014 – 2nd Year Examination – Semester 4

***IT4204: IT Project Management
Part 2: Structured Question Paper***

**19th July, 2014
(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** on **07 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 may be used.

Questions Answered

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

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

- (1) Consider the Table 1 below that gives the cash flow projections of four projects A, B, C, and D. These projects are in the same industry.

Year	Project A	Project B	Project C	Project D
0	-100,000	-1,000,000	-100,000	-120,000
1	10,000	400,000	45,000	50,000
2	10,000	400,000	43,000	50,000
3	100,000	400,000	42,000	50,000

Table 1: Cash flow projections for A,B,C and D in Rs. (figures are end of year totals)

- (a). Explain the reason for having negative values for the year zero.

[5 marks]

ANSWER IN THIS BOX

- (b). The caption of the above table states “figures are end of year totals”. What is the importance of that statement?

[5 marks]

ANSWER IN THIS BOX

- (c). Suppose, the time value of money is zero (discounted rate is zero) and the risk level of all four projects is the same. Among projects A, B and C, which project gives the highest net value ? Justify your answer.

[5 marks]

ANSWER IN THIS BOX

- (d). Will you change your answer, if the four projects have significantly different risk levels ? Explain.

[5 marks]

ANSWER IN THIS BOX

- (e). Evaluate the four projects using the **Payback period** method and identify the best project to be implemented. **In answering this question, assume that cash inflows are spread throughout the year.**

[5 marks]

ANSWER IN THIS BOX

- (f). Evaluate the four projects using the **Return of the Investment** method and identify the best project to be implemented.

[5 marks]

ANSWER IN THIS BOX

- (g). Suppose, the average lending rate of banks is 10% and average saving rate is 8%. Additional 1% is given to the saving accounts of senior citizens. The risk level of projects in this sector is 2% above the average lending rate. Calculate suitable discounted rate for the given projects.

[5 marks]

ANSWER IN THIS BOX

- (h). Using the Table 2 given below, calculate the net present value (NPV) of all four projects and identify the best project to be implemented. Assume that the discount rate is 10%.

Year	Discount rate (5)					
	5	6	8	10	12	15
1	0.9524	0.9434	0.9259	0.9091	0.8929	0.8696
2	0.9070	0.8900	0.8573	0.8264	0.7972	0.7561
3	0.8638	0.8396	0.7938	0.7513	0.7118	0.6575
4	0.8227	0.7921	0.7350	0.6830	0.6355	0.5718
5	0.7835	0.7473	0.6806	0.6209	0.5674	0.4972
6	0.7462	0.7050	0.6302	0.5645	0.5066	0.4323
7	0.7107	0.6651	0.5835	0.5132	0.4523	0.3759
8	0.6768	0.6274	0.5403	0.4665	0.4039	0.3269
9	0.6446	0.5919	0.5002	0.4241	0.3606	0.2843
10	0.6139	0.5584	0.4632	0.3855	0.3220	0.2472

Table 2: NPV Discount Rates

[15 marks]

ANSWER IN THIS BOX

(b). (i) Consider the following Work breakdown Table of a project.

Task	Duration (weeks)	Dependencies
A	3	-
B	2	A
C	10	-
D	10	C
E	3	H, B
F	4	-
G	5	A, F
H	6	D, G

Draw an Activity-on-Node network diagram for the above project. Do the forward pass, the backward pass and write the earliest start, earliest finish, latest start, latest finish weeks for each activity. Also mark the critical path on your diagram.

[25 marks]

ANSWER IN THIS BOX

