PRINCE OF SONGKLA UNIVERSITY
FACULTY OF ENGINEERING

Midterm Examination: Semester 1   **Academic Year**: 2010

Date: 31 July 2010   **Time**: 09.00-11.00 (2 hours)

Subject Number: 241-500   **Room**: S201

Subject Title: Research and Development Methodologies

Exam Duration: 2 hours (120 minutes)

This paper has 8 pages, 8 questions 70 marks (20%).

Authorised Materials:

- Writing instruments (e.g. pens, pencils).
- Textbooks, a notebook, handouts, and dictionaries are <u>not</u> permitted.

Instructions to Students:

- Scan all the questions before answering so that you can manage your time better.
- Write your answers in <u>Thai</u> only.
- Write your name and ID on every page.
- Any unreadable parts will be considered wrong.

Cheating in this examination

Lowest punishment: Failed in this subject and courses dropped for next semester.

Highest punishment: Expelled.

NO	Time (Min)	Marks	Collected	NO	Time (Min)	Marks	Collected
1	30	24		5	15	9	
2	5	4		6	10	5	
3	5	2		7	20	15	
4	15	6		8	10	6	
Total	110	Raw Marks (70)			Collected Marks (20%)		

Name_____ID_____

Question 1   **(24 marks; 30 minutes)**

Explain the meanings and also **give examples** of the following words.

a)   Basic research

b)   Applied research

c)   Motivation

d)   Contribution

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e)   Objectives

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f)   Scopes

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Name_____ID_____

g)   Conclusion

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h)   Plagiarism

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Question 2   **(4 marks; 5 minutes)**
Compare the following types of research papers and reasons for publications.

a)   Conference proceedings

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b)   Journals

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Question 3   **(2 marks; 5 minutes)**

Explain the two popular quantitative ways to judge how good a paper is.

a) Impact Factor

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b) Citation Index

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Question 4   **(6 marks; 15 minutes)**

Check if the following actions are concerned "plagiarism" or not.

a) The author takes everything from another paper which is not his or hers, word-for-word, and without citing the sources.

_____

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b) The author cites sources but provides inaccurate information regarding the reference materials so that it is impossible to trace.

_____

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c) The author cites all sources properly and paraphrases and uses quotations appropriately. However, the paper contains almost no original work.

_____

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d) The author cites most sources properly and paraphrases and uses quotations appropriately. He or she paraphrases other arguments from sources without citation so that the ideas become unique.

_____

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e) The author rewrites many parts from his or her previous work and put them into the new paper. As it is his or her own work, he or she does not cite the source.

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f) The author takes from several different sources, paraphrases the sentences and makes them fit together. Having done so many efforts, he or she does not cite the sources.
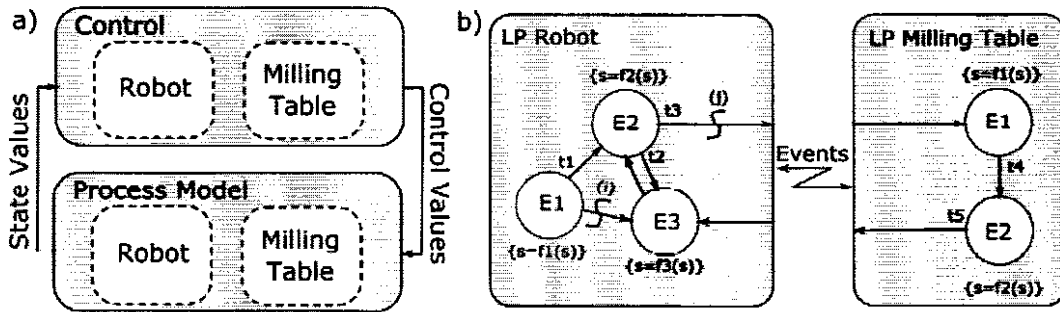
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Question 5 (9 marks; 15 minutes)

What are the differences amongst abstract, introduction and conclusion?

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Question 6 (4 marks; 10 minutes)

List 4 questions should be asked when starting a research.

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Question 7 (15 marks; 20 minutes)

a) List items that should appear in a proposal.

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b) List sections that should appear in a paper.

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c)   List chapters that should appear in a thesis

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Question 8   (6 marks; 10 minutes)

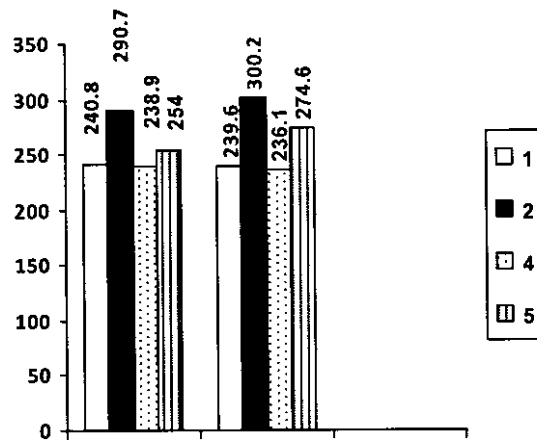Spot what is wrong with the following data representation. Also inform what should be changed or added.

a)

a) Simplified concentrated system design.
b) Simplified distributed system design.

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b)

Table 1. Matches between real object distances and pixel positions from the V-disparity by finding the medium

Object distance	Pixel Position		
	Minimum	Medium	Maximum
1	42	43	44
1.5	31	32	34
2	26	26	27
2.5	21	23	24
3	20	21	21
3.5	19	19	20
4	18	18	18
4.5	17	17	17
5	16	16	16
5.5	16	16	16
6	15	15	15
6.5	15	15	15
7	15	15	15

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Name_____ID_____

c)

รูปที่ 9 การเปรียบเทียบจำนวนครั้งที่กดเลือกแต่ละรูปแบบ

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Lecturer