APPENDIX E – PRE-STUDY QUESTIONNAIRE

E.1 FEATURE MODEL
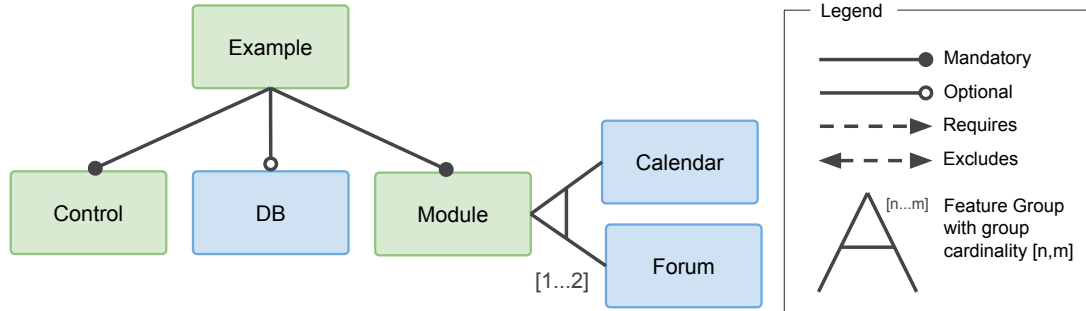
E.2 GENERAL INFORMATION

Feature	Cost	Import.
Example	3	0
Control	4	2
DB	2	3
Module	3	0
Calendar	2	4
Forum	1	3

# of mutants: 10

# of pairs: 10

Mutants: {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

Alive Mutants: {3, 4, 5, 8, 9, 10}

Equivalent Mutants: {1, 2, 6, 7}

Pairs: {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

E.3 PRODUCTS

#	Features	Killed Mutants	Covered Pairs	Cost	Import.
1	Example, Control, Module, Calendar, Forum, DB	9	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	15	12
2	Example, Control, Module, Calendar, Forum	3, 9	2, 3, 4, 8, 9, 10	13	9
3	Example, Control, Module, Calendar, DB	4, 8	1, 2, 3, 5, 6, 8	14	9
4	Example, Control, Module, Calendar	3, 4, 8	2, 3, 8	12	6
5	Example, Control, Module, Forum, DB	5, 8, 10	1, 2, 4, 5, 7, 9	13	8
6	Example, Control, Module, Forum	3, 5, 8	2, 4, 9	11	5
			Sum	**78**	**49**

Possible Solutions: {1, 2}, {3, 4, 5}, {1}, {2, 4, 5, 6}, etc.

E.4 QUESTIONS

Question 1: **(2 Points)** How many optional features does the feature model have? Choose correct option.

(a) 6

(b) 1

(c) 3

(d) 2

Question 2: **(2 Points)** What does a mutant feature model mean? Choose correct option.

(a) A modified version of the original diagram aiming to describe a fault

(b) A diagram used to represent commonalities and variabilities, and also to derive products for testing

(c) A prominent or distinctive user-visible aspect, quality, or characteristic of a software system or system

(d) None of the above

Question 3: **(2 Points)** Please indicate how much you agree or disagree with the following sentence *"It is possible to generate multiple solutions from this feature model"*

strongly agree	agree	neutral	disagree	strongly disagree
☐	☐	☐	☐	☐

Question 4: **(2 Points)** Provide a solution in which 100% of the **killed mutants** are covered. What is the cost value of this solution?

Product #1	Product #2	Product #3	Product #4	Product #5	Product #6
☐	☐	☐	☐	☐	☐

Cost: _____

Question 5: **(2 Points)** Provide a solution in which 100% of the **features** are covered. What is the importance value of this solution?

Product #1	Product #2	Product #3	Product #4	Product #5	Product #6
☐	☐	☐	☐	☐	☐

Importance: _____