

Suggested Solutions to Assignment 5 (OPTIONAL)

Part A True/ False/ Uncertain Questions

Explain why the following statement is True, False, or Uncertain according to economic principles. Use diagrams and / or numerical examples where appropriate. Unsupported answers will receive no marks. It is the explanation that is important. Each question is worth 10 marks.

A1.

The PPF of an economy will be concave shaped if there are many different ways to produce output. [Diagrams Required]

True

See section 32.10 and Figure 32.8 in Chapter 32 of the textbook, 7th edition (pages 602-604) a graphical explanation.

A2.

The distributional consequences of the delineation of property rights are eliminated when preferences are quasilinear. [Diagrams Required]

False

See section 34.10 and Figure 34.2 in Chapter 34 of the textbook, 7th edition (pages 630-631) a graphical explanation.

A3.

For a consumer, who is an expected utility maximizer, the utility of the expected value of wealth is greater than the expected utility of wealth. [Diagrams Required]

Uncertain

The answer depends on whether the consumer is a risk-averse, a risk lover or a risk-neutral.

See section 12.5, Figure 12.2 and Figure 12.3 in Chapter 12 of the textbook, 7th edition (pages 224-226) for a graphical explanation. See also Slides 19-31 of chapter 12 which are posted on the course website a graphical explanation.

A4.

If the consumer is a risk-averse, expected utility maximizer and if he is offered insurance against a loss, then he will optimally choose to fully insure.

Uncertain

The answer depends on whether the insurance offered is fair or 'unfair'.

See Slides 49-62 of chapter 12 which are posted on the course website an explanation.

Part B

Problem Solving Questions

Read each part of the question very carefully. Show all the steps of your calculations to get full marks.

B1.

Derive the calculus conditions for Pareto efficiency in an exchange economy.

See Appendix to Chapter 31 of the textbook, the 7th edition (pages 589-590).

B2.

Derive the calculus conditions for Pareto efficiency in an economy with production.

See Appendix to Chapter 32 of the textbook, the 7th edition (pages 611-612).

B3.

Derive the calculus conditions for the Pareto efficient allocations of the public good.

See Appendix to Chapter 36 of the textbook, the 7th edition (page 693).