## Introduction to Logic Assignment 1 (Part A)

King Mongkut's Institute of Technology Ladkrabang

## Task 1

Determine which of the following passages are arguments. For those that are, identify the conclusion and the premises.

<sup>1</sup>The Covid-19 outbreak greatly disrupts both domestic demand and external demand. <sup>2</sup>Governments can only manipulate domestic demand and have no management power over external demand. Therefore, <sup>3</sup>a fiscal stimulus package will not be so effective for Thailand. (Bangkok Post, 13 Aug 2020)

1.2 <sup>1</sup>A dog was kept in the stalls and yet, though <sup>2</sup>someone had been in and fetched out a horse, <sup>3</sup>the dog had not barked. Obviously, <sup>4</sup>the visitor was someone whom the dog knew well. ("The Adventure of Silver Blaze" by Sir Arthur Conan Doyle)

1 3 is a premise, 4 is the conclusion

1.3 <sup>1</sup>About 100 motorcyclists working for Grab food delivery service went on strike and rallied on Wednesday, accusing the company of cutting their returns to an unviable level. <sup>2</sup>The motorcyclists gathered behind Big C store in South Pattaya, Chon Buri province. <sup>3</sup>Grab food rider Narongsak Suksa-nguan, 30, said Grab changed its system of payment last November in a way that cut each rider's earnings from more than 1,000 baht a day previously to only 300-400 baht a day on average. <sup>4</sup>That just was not enough, considering they also had to pay for fuel and motorcycle maintenance, he said. (Bangkok Post, 5 Aug 2020)

1.4 Animals born without traits that led to reproduction died out, whereas the ones that reproduced the most succeeded in conveying their genes to posterity. Crudely speaking, <sup>3</sup>sex feels good because <sup>4</sup>over evolutionary time the animals that liked having sex created more offspring than the animals that didn't. (R. Thornhill and C. T. Palmer, "Why Men Rape," The Sciences, February 2000)

Each passage below contains an extended argument. Draw a diagram showing the inferential relationship among the statements in the passage. If a statement is redundant or plays no role in the argument, do not include them in the diagram.

- 2.1 During the outbreak period, there is no better policy than a cash handout or a "basic income policy". <sup>2</sup>Soft loan programmes to SMEs will fail as <sup>3</sup>there is low demand for products. <sup>4</sup>When product demand is low, demand for loans (from good SMEs) will also be low. (Bangkok Post, 13 Aug 2020)
- 2.2 ¹The post-Covid period will be painful for Thailand because ²external demand will never be fully restored. ³After the pandemic, world savings (currently about 25.1% of GDP) will be mostly exhausted by government borrowing and by consumers during the outbreak period. ⁴The whole world has to re-save. ⁵More saving means (much) less spending on unnecessary products like travel and automobiles. ⁶Unfortunately, Thailand's export income significantly depends on such products. (Bangkok Post, 13 Aug 2020)
- 2.3 <sup>1</sup>All cars should have a spear mounted on the steering wheel, aimed directly at the driver's chest. After all, <sup>2</sup>we should do everything we can to encourage cautious driving. Since <sup>3</sup>people behave much more cautiously when they know that their life is on the line, <sup>4</sup>steering wheel-mounted spears would make people drive much more cautiously. (Steven E. Landsburg, The Armchair Economist)
- 2.4 <sup>1</sup>Solar-powered cars can never be anything but experimental devices. <sup>2</sup>Solar power is too weak to power even a mini-car for daily use. <sup>3</sup>The solar power entering the atmosphere is about 1 kilowatt per square yard. Because of <sup>4</sup>the scattering in the atmosphere, and because <sup>5</sup>the sun shines half a day on the average at any place on earth, <sup>6</sup>average solar power received is 1/6 kilowatt, or 4 kilowatt hours a day. <sup>7</sup>Tests on full-size cars indicate that 300,000 watt hours are required in a battery for an electric car to perform marginally satisfactorily. So, <sup>8</sup>40 square yards of cells would be needed to charge the car batteries, certainly too large to fit on the roof of a typical car. (Victor Wouk, "You Can't Drive Solar Cars to Work," The New

