
EE220 2018: SAMPLE ANSWERS

SINEAD.BARTON@MU.IE



**PLEASE NOTE THAT
THE FOLLOWING
QUESTIONS ARE
ANSWERED IN THE
2019 SAMPLE
ANSWERS**

- Question 1:
 - A
 - B
 - C
 - D
 - F
 - H
 - J
 - K

**E: INTELLIGENT
MACHINES CAN
BE DELIBERATELY
CONFUSED.
DISCUSS THE
IMPLICATIONS OF
THIS FOR
AUTONOMOUS
MACHINES.**

- This is part of the concept of artificial stupidity
- Section 6, Slide 46 – 47
- This question is linked to artificial stupidity. Intelligent machines can be confused if the way something looks is different to the way that the system expects. For example, an autonomous car might not recognise a stop sign if someone puts paint on the sign. This could be dangerous and cause an accident, like in the case study of the lady who was killed by a self-driving car because the car was not able to identify her as a pedestrian.

G: LIST AND EXPLAIN THE KEY FEATURES THAT ARE SAID TO BE RELEVANT IN MAKING A ROBOT OR MACHINE “LIKEABLE”.

- How the robot looks
 - Round smooth features (like a baby) instead of sharp pointed ones
 - Calm neutral colours
 - Avoid the uncanny valley
- How the robot moves
 - Smooth human like movement with visual cues for what the robot will do next
- How the robot sounds
 - Higher pitched voice is nicer
 - Avoid machine like noises
- How the robot engages
 - Personality like a child or servant
 - Be aware of cultural differences (Fabio the Pepper robot)



I: WHAT IS THE DIFFERENCE BETWEEN A FAULT AND A FAILURE?

- A fault is something that is wrong with the machine / system from the time it comes off the shelf (when it is new and not used). A fault may be caused by manufacturing or design error. A fault can cause a failure.
- A failure is when something goes wrong with a machine / system and it becomes unsafe / not possible to use.

L: EXPLAIN WHAT IS REQUIRED BY THE EU GENERAL DATA PROTECTION REGULATION. WHAT DOES THE POLICY SAY ABOUT COLLECTING AND STORING DATA ABOUT CHILDREN? WHAT IS THE ISSUE AROUND CONSENT AND CHILDREN?

- GDPR is designed to standardise privacy laws across the EU. The main focus of this regulation is to give ordinary people more control over their private data when it is stored by companies who would like to use the data for profit. For example, they have the right to delete their data, correct their data, and request to view their data and more.
- Collecting data about children has extra limits because children cannot legally give consent. Therefore, anyone collecting and storing data about a child must get permission from their parents.



QUESTION 2

- A – Most of this question as covered in assignment 1 and the small homework
- B – Most of this question was covered in assignment 2 and the small homework
- C – Most of this was covered in the small homework and in section 7

- If you have any questions about this you can contact me on teams / email / moodle.