QUESTIONS

1. Who, where and when came up with the notion of robot? What does it mean?
2. Uncanny valley
3. Robot types based on application + examples. What is the difference between an android and a humanoid?
4. Wizard of Oz – definition, why do we need this method, what kind of problems can occur?
5. Metrics for HRI.
6. What is the difference between gait and run? What are the phases of gait? What kind of gaits do you know?
7. What is a servo motor? Why they are used?
8. What is a sensor? What is an actuator? What kind of sensors and actuators does NAO use? Explain the working mechanism of two of those.
9. Describe three movies with robots? What kind of roles do they play?
10. What does it mean, that humans have social brain? What is the uncanny valley?
11. Robot types based on kinematics. Provide three examples of bipedal robots.
12. Statistic metrics for HRI.
13. Why do we need bipedal robotic gait? What is the cost of transportation? What is the zero moment point?
14. What is a sensor? What is an actuator? How does the sonar, magnetic rotary encoder a force sensitive resistor work?
15. How is the movement of robots realized on the hardware level. Describe two options.
16. History and definition of cloud computing.
17. Characteristics of cloud computing.
18. Service models.
19. Deployment models.
20. Definition of cloud robotics. Provide examples.
21. What are social signals?
22. Why do we need social signals? Problems.
23. Provide examples of social signals and describe them.
24. Emotions and emotion models.
25. Emotion recognition (steps, available cloud services, ...)