

Exam questions – question pool

1. Define *Robot Ethics*!
2. Explain shortly: What is the anthropocentric access/perspective to robot and machine ethics!
3. Name three essential and crucial aspects of robot ethics and explain each of them in one sentence!
4. Define concisely: What are AMAs?
5. Position yourself: Do you consider *Asimov's Laws of Robotics* as valuable?
6. Explain the idea behind a Friendly AI!
7. Assess: Which branch of normative ethics do you regard as most suitable for programming intelligent bots?
8. Assess: What are the advantages/disadvantages of *Deontology* when it comes to programming autonomous bots?
9. Assess: What are the advantages/disadvantages of *Utilitarianism* when it comes to programming autonomous bots?
10. Assess: What are the advantages/disadvantages of *Virtue Ethics* when it comes to programming autonomous bots?
11. Form an appropriate virtuous code consisting of five key-virtues for a decision-making AI in the field of care and nursery and explain your decision!
12. "*Consequentialism is not an apt moral basis for programming military robots that are supposed to make autonomous decisions in warfare.*"

Discuss the validity of this statement!

13. Name the different spheres and challenges for programming autonomous vehicles!
14. Illustrate: Should an AI-controlled plane, hijacked by terrorists who threaten to fly it directly into a packed stadium, "sacrifice" itself and its passengers for the greater good/lesser evil?

15. Analyze the case: *An autonomously driving car realizes that it is being used as a transport vehicle in a criminal act (human trafficking, grand theft, drug smuggling etc.). Should it act as a moral agent in itself and autonomously shut down its services or inform the authorities?*
16. Position yourself: Can a highly useful and unique robot be considered more valuable than the life of an evil human being?
17. Explain: In how far can robots be regarded subjects of responsibility?
18. Enumerate the principles of a *Responsible AI*!
19. Explain: Can a medical bot applying triage be regarded as morally responsible/irresponsible?
20. Name three *forms of guilt/culpability* and explain them!
21. State the differences between absolute and relative theories of punishment!
22. Assess: Can an autonomous robot be seen as a *Full Legal Agent*?
23. Explain: Can Machine Learning profit from the scientific background of psychology and pedagogics?
24. Illustrate: How do the ideas of constructivism and autonomous morality correlate with bottom-up approaches in Machine Learning?
25. Explain: What is the post-conventional-level in Kohlberg's theory of moral development?
26. Illustrate: How does human work differ from robot work?
27. Enumerate the four main anxieties of human beings towards robot-work and explain each in one sentence!
28. Name three advantages of robotic automation and illustrate them with examples!
29. Name three disadvantages of robotic automation and illustrate them with examples!
30. Choose one employment field in which robots will have a crucial impact and explain why!
31. Explain: What is the *human-to-human interaction script*?
32. Explain: How can you increase the acceptance for robots?

33. Illustrate the positive impact robotics can cause in the fight against climate change!
34. Illustrate Hans Jonas' five principles within his *Ethics of Responsibility*!
35. In how far can Jonas' *Imperative of Responsibility* be applied to robotics?
36. Define and explain: What is *The Uncanny Valley* and what are its implications for robot-design?
37. Name three forms of *Human Enhancement* and explain each of them in one sentence!
38. "*Transhumanism is the next inevitable step of evolution, so we should overcome the homo sapiens as quickly as possible.*"

Discuss the validity of this statement!

39. Explain what is meant by *instrumentalization* when it comes to creating robotic-enhancements or cyborg-humans!
40. Assess: Should the usage of military robots be legally forbidden? Include your knowledge about *concepts of peace*!
41. Enumerate the risks of LAWS (lethal autonomous weapon systems)?
42. Explain: Do robot-art, robot-music and robot-literature have aesthetic value?
43. Name the social spheres of *human-robot-relationships*!
44. Explain one sphere of *human-robot-relationships* elaborating one particular example!
45. Assess: Does the field of robotics and automation hold a rather utopian or dystopian potential for humankind?

Good luck with your preparation!

