

# Resit WM0324LR

## Ethics and engineering for aerospace engineering

April 8, 2013, 9:00-11:00 – **WITH ANSWERS**

This exam consists of 30 multiple choice questions. Each question has only one right answer. In some questions, you are asked to indicate which statement(s) is/are true. If two statements are true, choose the answer that indicates this. If you do not know the answer, you may make a guess. In the grading of the test, a correction is made for guessing, so it is beneficial for you to always answer the question! You may use a **dictionary**. Good luck!

- Which of the following statements indicates active responsibility?
  - A) It refers to a duty or task to care for a certain affair, before something undesirable has happened.**
  - It is applicable after something undesirable has happened and for assigning responsibility
  - It includes both forward-looking and backward-looking concepts of responsibility
  - None of the above
- When an individual is coerced to take a certain action and that action has caused undesirable consequences then
  - That individual is responsible to a lesser extent because she was simply following orders
  - B) That individual is responsible to a lesser extent because she did not have freedom of action**
  - That individual is responsible because she had a causal contribution
  - That individual is responsible because she has done something wrong
- There are different models for considering the responsibility of engineers. Which of the following statements is true about the *tripartite model*?
  - Engineers can be held responsible for their design, if that design causes harm to users
  - Engineers can be held responsible for their design, because they have the best knowledge of technological design
  - C) The responsibility of engineers is limited, because the formulation of the design assignment is done by managers**
  - The responsibility of engineers is limited, because engineers should not make moral decisions for others on the assumption that the engineers know what is better for the users
- What is the *Collingridge dilemma*?
  - New technological developments could result in undesirable societal consequences, but at the same time we need to continue innovation
  - B) It is not possible to predict the consequences of new technologies in an early stage, and once those consequences materialize it is very difficult to change its development**
  - We must accept the negative consequences of new technology, because in the end new technology promotes human well-being
  - None of the above
- Which of the following does not belong to the characteristics of a *profession*?
  - Specialized knowledge and skills are needed for carrying out a profession
  - There must be a monopoly on carrying out the occupation
  - C) The necessary license must be acquired for carrying out that profession**
  - The assessment of the carried out work could only be done by peers
- Since globalization of the world's economics has increased the working space of engineers, some principles have been proposed for a Global Code of Engineers. Which of the following belong to these global responsibilities, as discussed in the book?
  - To respect host-country (less developed country) culture in your professional work
  - To participate only in technology that promotes the country's development
  - To refrain from technologies that produce more harm than good
  - D) All of the above**

7. In Codes of Conduct, it is often said that engineers should avoid a *conflict of interest*. Which of the following situation is not an instance of conflict of interest?
- A) When you advice two competing firms
  - B) When you start a company that provides similar services to similar clients as those of your full time employer
  - C) When the continuation of your employment within a company would depend on the continuation of a project that this company is running.**
  - D) When you work part time in the evening for a company that makes a product that competes with the products of your full time employer
8. Which of the following is not a descriptive statement
- A) Ford Pinto has put many lives at risk
  - B) Ford Pinto should not have been put in the market**
  - C) Both A and B
  - D) Neither A nor B
9. What is true about normative judgments?
- A) These statements indicate the rightness or wrongness of an activity**
  - B) These statements describe existing morality, including customs, habits and opinions about right and wrong
  - C) Both a and B
  - D) Neither A nor B
10. The statement “Nature must be respected as such and not for what it means for human-beings” indicates that
- A) Nature has an intrinsic value**
  - B) Nature has an instrumental value
  - C) Nature has an intrinsic virtue
  - D) Nature has an instrumental virtue
11. Normative relativism appeals to ‘freedom of opinion’ to argue that all moral points of view are relative. Which of the following is a critique on this moral theory?
- A) It makes any meaningful moral discussion impossible
  - B) It could lead to unworkable and intolerable situations
  - C) Both A and B**
  - D) Neither A nor B
12. What is a problem of utilitarianism as a method for assessing new technology?
- A) Consequences of new technology cannot be quantitatively measured in an objective way
  - B) Consequences of new technology are often unpredictable
  - C) New technology could lead to an unjust distribution of costs and benefits
  - D) All of the above**
13. Rule utilitarianism states that
- A) When a rule leads to promoting general happiness then it is a justified moral rule**
  - B) When a rule leads to actions that are morally praiseworthy then it is a justified moral rule
  - C) When a rule leads to a just distribution of burdens and benefits, then it is a justified moral rule
  - D) All of the above
14. Deontology argues that
- A) An action is morally right, if the moral agent has the desirable characteristics to be moral
  - B) An action is morally right if it is in agreement with a valid moral rule**
  - C) The rightness of an action could only be correctly assessed when including people’s emotions
  - D) The rightness of an action could only be assessed when taking into account the specific moral context of the situation

15. Who based his ethics on the principle of moral autonomy of individual human-beings?
- A) Bentham
  - B) Mill
  - C) Kant**
  - D) Aristotle
16. Which of the following statements is true for *Prima Facie Norms*?
- A) Prima facie norms are norms that are only considered as norms at first sight, but are on closer inspection morally irrelevant
  - B) Prima facie norms are norms that are derived from overarching moral values
  - C) Prima facie norms are norms that are applicable unless they are overruled by more important norms**
  - D) None of the above
17. Which of the following is applicable to a *valid argument*?
- A) When all premises are true, the conclusion must be true**
  - B) When all premises are true, the conclusion can still be not true
  - C) When at least one premise is true, the conclusion must be true
  - D) None of the above
18. The scientific practice is based on
- A) Deductive argumentation, because general laws help us clarify observations
  - B) Deductive argumentation, because we derive general laws from particular experiments
  - C) Inductive argumentation, because general laws help us clarify observations
  - D) Inductive argumentation, because we derive general laws from particular experiments**
19. In means-end argumentation it is argued that for achieving an end x, you must carry out action y. What is a general moral problem of this reasoning?
- A) It is unclear whether action y could indeed realize end x
  - B) It is unclear whether action y could be carried out
  - C) It is unclear whether the end x is morally acceptable**
  - D) All of the above
20. The straw person fallacy is committed when
- A) An attempt is made to misstate a person's actual position in order to argue that the original argument is bad**
  - B) An attempt is made to discredit an argument by discrediting the person that presents the argument
  - C) An attempt is made to play with the meaning of words or phrases of a person's argument in order to make the argument ambiguous
  - D) None of the above
21. What is the technocratic fallacy?
- A) Technological risks and benefits are weighted against each other
  - B) From the fact that the risks of a technology are non-detectable it is concluded that the risks are acceptable
  - C) Decisions about the acceptability of technological risks are being delayed on the basis of the assumption that "if we wait we will know more about these risks"
  - D) None of the above**
22. Value Sensitive Design is an approach that aims at integrating ethical values in a systematic way in technological design. Which of the following statements is true about Value Sensitive Design?
- A) It aims at understanding the context and experience of the people affected by technological design
  - B) It aims at clarifying the values at stake, and making trade-offs between these values
  - C) It analyzes design and their operational principles to assess how well these support particular values
  - D) All of the above**

23. A crucial step in the ethical cycle is the reflection step. One approach for carrying out this reflection step is called the 'Wide Reflective Equilibrium', the aim of which is to make moral judgments and moral principles coherent. Political philosopher John Rawls defends this approach, and he introduced the notion of *overlapping consensus*. What does this notion entail?
- A) **There is agreement on the level of moral judgment while there might be disagreement on the level of moral principles**
  - B) There is agreement on the level of moral principles while there might be disagreement on the level of moral judgment
  - C) There could be a disagreement about how to act, even when there is an agreement on both levels of moral judgment and moral principles
  - D) There could be a disagreement about how to act, if there would be a disagreement on either moral judgments or moral principles
24. Systematic risk assessment
- A) Is impossible because risks are by definition unpredictable
  - B) Is morally unacceptable because it requires one to put a price on human life
  - C) **Does not necessarily lead to judgments about the acceptability of risk**
  - D) None of the above
25. Liability is the same as
- A) Moral responsibility
  - B) Blameworthiness
  - C) **Legal responsibility**
  - D) None of the above
26. Which of the following factors does not normally play a role in the perception of risk by the public
- A) The proximity and visibility of risks
  - B) The expected benefits of the activity that causes risk
  - C) **Whether or not the activity that causes risk is within legal norms**
  - D) The maximal occurring negative effects that could be accused by this risk
27. Which of the following is true about the moral fairness requirement when attributing responsibility?
- A) In forward-looking responsibility, a person should only be allocated a responsibility if she can live by
  - B) In forward-looking responsibility, a person should only be allocated a responsibility if she has the means and the authority to fulfill her responsibility
  - C) **Both A and B**
  - D) Neither A nor B
28. Negligence is often a legal condition for liability. In order to show negligence for the law, certain criteria must be met. Which of the following belong to these criteria?
- A) Proof must be given that a duty owed has been breached
  - B) An injury or damage must have been caused
  - C) There must be a causal connection between the breach of a duty owed and the injury or damage
  - D) **All of the above**
29. Which of the following is true about limited liability?
- A) **Shareholders are liable for the corporation's debt up to the value of their shares**
  - B) Shareholders are personally liable for the caused damage, also beyond the value of their shares
  - C) The liability of each individual shareholder will be determined based on her property and capital
  - D) A and C
30. Collective responsibility implies that
- A) Every member of a collective body is only responsible for her own action
  - B) Every member of a collective body is responsible for actions of other members
  - C) Every member of an organization is responsible to an equal degree for the actions of the organization
  - D) **B and C**