



STRATHMORE INSTITUTE OF MATHEMATICAL SCIENCES

MASTERS IN DATA SCIENCE & ANALYTICS

END OF SEMESTER EXAMINATION

DSA 8101 ETHICS IN DATA SCIENCE

DATE: 9th September 2021

Time: 2 hours

Instructions:

Answer all short questions (1 to 12) and only two essay questions (13 to 16)

Short Questions (60 marks, 5 marks each)

1. What is more important to know ethics or to practice morals? Briefly explain your answer.
2. Briefly explain the relationship between personal level, character, and temperament.
3. List the classical six steps of decision making in the context of proposing a radical company change to the Board.
4. There are four cardinal virtues. Which one is the most important and why?
5. Explain how privacy, which is a human right, is founded on one of the four personal radicals?
6. *Freedom for* is different from *freedom from*. Which one is more important? Why?
7. Personal knowledge can be distorted by many disruptors. Explain how one can overcome at least three disruptors.
8. Love is distinctive of humans. Explain what are the three phases of love at the personal level.
9. To audit a decision in moral terms three things are to be considered. Briefly explain them.
10. Briefly explain the three systems to analyse morality. Also, how does one need the three to have a complete vision of ethics?
11. All laws should be ethical. Explain whether this assertion is correct.
12. Mary Gentile Giving Voice to Value has seven tips (pillars). When asked to do something we feel is unethical we can use some of them to convince those who request it to modify their request. Explain how you would use at least two of those tips.

Essay questions (20 marks) Choose only two.

13. A military department would like to have a training program for their officers to guarantee they are training in prudence when planning attack operations. Using the 9 elements of prudence, prepare a series of questions the officers must fill in, in order to guarantee a proper outcome of attack operations. (10 marks)
14. Transparency International would like to create a spider that searches all government websites to see whether they respect the personal, essential, and physical freedom of their people. What are the characteristic sentences or words you will search for in each of the freedom levels? (10 marks)
15. The Senate is concerned about the effects of anonymity in medical research while understanding that privacy is a recognised universal human right. Your firm is asked to prepare a presentation in which you propose a system that allows researchers to share data sets, which makes it practically impossible to aggregate data consequently breaking the anonymity required. a) What are the universal ethical principles you will use to defend that anonymity is a universal human right b) what are the attributes you will have to remove in the data set. (10 marks)
16. Greenpeace International would like to classify the multinational companies on how they respect the six ethical social principles. They would like to do this automatically by a spider that searches all government documents on their websites. Propose a search set of sentences for each of the six principles. (10 marks)
