Assignment 8

Instructions:

1. Write your name below the instruction text.

2. Use pen and paper to show your work. If you are using a computer, print your work to see what you are doing. This is an important part of the assignment.

3. Hand in your completed assignment, including your work, to the Teaching Assistant.

Instructions:

1. Submit Assignment 8 by the due date.

2. Submit your completed assignment, including your work, to the Teaching Assistant.

3. Your work should be visibly printed.

Assessment Criteria:

1. Accuracy of the answers to the questions.

2. Quality of the written explanations.

3. Clarity of the presentation of the work.

Submission Date:

Assignment due on 2020-02-05, 10:00 AM

Access to Resources:

1. Textbook

2. Online resources

3. Library resources

Questions:

1. What is the purpose of a computer program?

2. Describe the structure of an algorithm.

3. Explain the difference between a function and a subroutine.

4. How does a compiler translate code into machine language?

5. Define the concept of abstraction in computing.

6. Discuss the importance of data types in programming.

7. Explain the role of an operating system in managing computer resources.

8. Describe the difference between single-threaded and multi-threaded processes.

9. What is the purpose of a database management system?

10. Explain the importance of security and privacy in computing.

11. Discuss the role of networking in modern computing.

12. Explain the concept of cloud computing and its advantages.

13. Discuss the impact of artificial intelligence on society.

14. Describe the role of cryptography in ensuring data security.

15. Explain the importance of software testing and quality assurance.

16. Discuss the ethical implications of data collection and privacy.

17. Explain the role of computer ethics in guiding ethical behavior.

18. Discuss the impact of computer technology on work and society.

19. Explain the role of computer science in addressing environmental challenges.

20. Discuss the impact of computer technology on the economy.

21. Explain the role of computer science in healthcare.

22. Discuss the impact of computer technology on education.

23. Explain the role of computer science in addressing social challenges.

24. Discuss the impact of computer technology on the arts.

25. Explain the role of computer science in addressing global challenges.

26. Discuss the impact of computer technology on sports.

27. Explain the role of computer science in addressing human challenges.

28. Discuss the impact of computer technology on travel.

29. Explain the role of computer science in addressing technical challenges.

30. Discuss the impact of computer technology on transportation.

31. Explain the role of computer science in addressing environmental challenges.

32. Discuss the impact of computer technology on communication.

33. Explain the role of computer science in addressing economic challenges.

34. Discuss the impact of computer technology on entertainment.

35. Explain the role of computer science in addressing social challenges.

36. Discuss the impact of computer technology on the environment.

37. Explain the role of computer science in addressing political challenges.

38. Discuss the impact of computer technology on health.

39. Explain the role of computer science in addressing technological challenges.

40. Discuss the impact of computer technology on science.

41. Explain the role of computer science in addressing education challenges.

42. Discuss the impact of computer technology on technology.

43. Explain the role of computer science in addressing economic challenges.

44. Discuss the impact of computer technology on the arts.

45. Explain the role of computer science in addressing social challenges.

46. Discuss the impact of computer technology on science.

47. Explain the role of computer science in addressing technological challenges.

48. Discuss the impact of computer technology on health.

49. Explain the role of computer science in addressing education challenges.

50. Discuss the impact of computer technology on technology.