**Multiple Choice [12 Marks]**

1. Which of the following topics is NOT part of a “Terms of Service” contract?
   1. Potential misuse
   2. Behavior, and conduct
   3. Payment details such as membership or subscription fees
   4. [Opt-out](https://en.wikipedia.org/wiki/Opt-out) policy describing procedure for account termination
   5. Use personal data
2. Which of the following topics is part of a “Privacy Policy” contract?
   1. Proper or expected usage
   2. Accountability for online actions,
   3. Payment details such as membership or subscription fees
   4. [Opt-out](https://en.wikipedia.org/wiki/Opt-out) policy describing procedure for account termination
   5. Use personal data
3. Which of the following features is NOT a part of a Software IDE?
   1. Source code editor
   2. Intelligent code completion
   3. Version tracking and control
   4. Compiler / Verification tools
   5. Integrated help and documentation
4. Which of the following features is NOT a part of a Version Control System?
   1. Version tracking and control
   2. Backup and restore
   3. Build automation tools
   4. File sharing
   5. Access from multiple computers
5. Which of the following is NOT an internal part of a desktop computer?
   1. Power supply
   2. Hard drive
   3. USB memory stick
   4. CPU cooling fan
   5. Sound card
6. The capacity of modern Hard Drive memory is measured in:
   1. Bytes
   2. Kilobytes
   3. Megabytes
   4. Gigabytes
   5. Terabytes
7. The capacity of modern Ethernet connections is measured in:
8. Kilobytes
9. Megabytes
10. Kilobits per second (Kbps)
11. Megabits per second (Mbps)
12. Files per second
13. Which of the following is NOT a feature of “Cache” memory?
14. Faster access than main memory
15. Stores rarely or infrequently accessed data and instructions
16. Usually built in as part of the processor or hard drive
17. Cache memory is much smaller capacity than main memory
18. Many devices use Cache Memory
19. A “word” is made up of how many bits of computer memory?
20. 1 bit
21. 4 bits
22. 8 bits
23. 16 bits
24. 23 bits
25. A 16 bits makes up this size of computer memory?
26. 1 byte
27. 1 character
28. 1 word
29. 1 long word
30. 1 string
31. A user types “vode loop()” rather than “void loop(): in their program. This is an example of a:
    1. Typing Error
    2. Syntax Error
    3. Logic Error
    4. Run-Time Error
    5. Spelling Error
32. A user creates a program that verifies and uploads to the Arduino board but does nothing when it runs. This is an example of a:
    1. Programming Error
    2. Syntax Error
    3. Logic Error
    4. Run-Time Error
    5. Computer Error

**Short Answer [20 Marks]**

1. Mrs. Kuhl needs to organize and store the mid-term tests for each department in the school . Each test is a Word file. Each department (e.g. Math, Science, English, etc.) has created a number of tests for each grade (e.g. Grade 9, 10, 11, 12)
2. Create a list of 10 sample test file names related to possible school departments and grades. [2]
3. Create a set of folders that could be used to organize these sample test files. [2]
4. Sort the sample test files into the appropriate folders. [2]
5. Mrs. Kuhl also wants to make sure these files are securely backed up and can be shared by the vice principals and office staff. What solution do you recommend? [2]
6. Explain how cache memory can speed up a hard drive. [2]
7. Draw a diagram showing how a “word” of computer memory is organized into bits and bytes. [3]

*Program Specification – For Use With The Remaining Questions In This Section*

The sample Arduino program reads commands from the serial monitor, flashes the on-board LED, and writes information back to the serial monitor. The details are as follows:

* If the user types a number less than 10 into the serial monitor then the program flashes the on-board LED.
* If the user types a number greater or equal to 10 into the serial monitor then the program prints “Number Too Big!” to the serial monitor.

1. List the “input objects” mentioned in the program specification above. [2]
2. List the “output objects” mentioned in the program specification above. [2]
3. Create a flowchart for the action sequence described above. [3]