**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. Use of personal data
   5. Dispute resolution process and limited rights to take a claim to court
2. Which of the following topics is part of a “Privacy Policy” contract?
   1. Potential misuse
   2. Use personal data
   3. Behavior, and conduct
   4. Payment details such as membership or subscription fees
   5. [Opt-out](https://en.wikipedia.org/wiki/Opt-out) policy describing procedure for account termination
3. Which of the following features is NOT a part of a Software IDE?
   1. Source code editor
   2. Intelligent code completion
   3. Build automation tools
   4. Version tracking and control
   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. File sharing
   4. Compiler / Verification tools
   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. Video card
   5. Ethernet Controller
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 WIFI 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 frequently accessed data and instructions
16. Built in as part of the processor or hard drive
17. Cache memory has a similar capacity to the 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 32 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 to blink both a red and green LED but only the red LED blinks. 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 negative integers are stored in computer memory. [3]

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

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

* If the user types an even number into the serial monitor then the program flashes a “green” LED.
* If the user types an odd number into the serial monitor then the program flashes a “red” LED.
* If the user types a non-number into the serial monitor then the program prints “Not a Number!” 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]