**Multiple Choice [12 Marks]**

1. Which of the following topics is NOT part of a “Terms of Service” contract?
   1. Proper or expected usage
   2. Accountability for online actions,
   3. Use personal data
   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
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. 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. USB memory stick
   3. Motherboard
   4. Video card
   5. Ethernet Controller
6. The capacity of modern RAM 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. Usually built in as part of the processor or hard drive
17. Cache memory is much smaller capacity than main memory
18. Only Processors and Video Cards have Cache Memory
19. A “byte” 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 in a program and forgets to add a semi-colon to one of the command lines. 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:
33. Programming Error
34. Syntax Error
35. Logic Error
36. Run-Time Error
37. Computer Error

**Short Answer [20 Marks]**

1. Mr. Liang needs to organize a collection of image files from photographs taken for the year book. The photographs are from various clubs, sports teams, and events around the school.
   1. Create a list of 10 sample image file names related to possible clubs, teams, and events. [2]
   2. Create a set of folders that could be used to organize these sample image files. [2]
   3. Sort the sample image files into the appropriate folders. [2]
2. Mr. Liang also wants to make sure his files are securely backed up and can be shared by students working on the year book. What solution do you recommend? [2]
3. Explain how cache memory can speed up a processor. [2]
4. 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 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]