10% (I) 本題含二子題，任選一子題作答。
(a) List six HTML tags and explain how to use them with examples for each of them.
(b) In OpenOffice or Microsoft Office, how to use Mail Merge to create different versions of the same letter intended for a large number of recipients? Explain it with an example.

10% (II) List five terminologies regarding computer networks and give brief explanation for each of them. (Do NOT write too much for each term.)

10% (III) Given any binary search tree, we can print its elements in sorted order in $O(n)$ time by performing an inorder tree walk. Explain how to do this with pseudo codes. Also give the pseudo codes for postorder tree traversal.

20% (IV) (5% for each) Briefly answer the following questions.
(a) Distinguish BLOG vs. Wiki.
(b) Compare RISC and CISC computers.
(c) Discuss the problems of computing with floating numbers.
(d) Distinguish function name overloading vs. polymorphism.

20% (V) (5% for each; 任選 4 子題) Briefly answer the following questions.
(a) Most programming languages provide some form of aggregate type or record (struct) type. However, we can write any program without these aggregate types. What are the advantages to use the aggregate types? Explain it with an example.
(b) Explain Abstract Data Type (ADT) with an example.
(c) Explain exception handling with an example.
(d) Explain “command driven,” “menu driven,” and “event driven.”
(e) In implementation of quick sort, if we choose the leftmost element as the pivot, when does the worst case happen? How can we prevent the bad worst case? Is quick sort a stable sorting algorithm? Why?
(f) What is the “Towers of Hanoi problem”? What is the “Fibonacci’s rabbit problem”?

15% (VI) (5% for each) Consider the data structures STACK and QUEUE.
(a) A Stack maybe implemented in two ways: as an array, or as a linked list. Discuss the pro’s and con’s for the different implementations.
(b) List at least 3 applications of Stacks with brief explanation (explain how to use it).
(c) Illustrate how to implement and maintain a circular queue using an array. How can you distinguish a full queue and an empty queue?

15% (VII) (任選 5 子題) Give brief explanation for each of the following computer terminologies.
(a) Agent vs. Proxy, (b) BOOTP and DHCP, (c) CRC cards and UML, (d) Dynamic programming, (e) Encryption vs. Digital signature, (f) PRNG of uniform distribution (for eg., the rand( ) function in C Language), (g) Greedy algorithm, (h) Heuristic function. (3% for each; 任選 5 子題)