

- (10%) 一、 Briefly describe (a) windowing applications, (b) EIS, (c) multimedia, (d) pen-based portable °
- (10%) 二、 (a) What is the O.S.? Use an O.S. you are familiar with to illustrate its functions. (b) Briefly write down your idea about the "next-generation" O.S. (e.g., Taligent, Windows NT, etc.) on PC °
- (10%) 三、 (a) Briefly introduce Internet or Bitnet. (b) What is the impact of the development of client-server computing or interoperability on the building of a manufacturing information system °
- (20%) 四、 Use a programming language (BASIC, FORTRAN, C OR PASCAL) to "solve" the problem below:
Randomly generate 60 students each with the weight of 50kg to 80kg uniformly. Now, given that each ship has the capacity limitation of 990kg, find out the minimal number of the ships to load all the students.
Your flowchart is required °
- (15%) 五、 Build an B⁺-tree for the following set of key values:
(3,5,7,11,13,17,19,23,29,31,37,39)
Under the assumption that the number of search-key values that fit in one node is 3 °
- (15%) 六、 Draw the architecture of an IBM PC AT. The general layout of its major components, their principal features, and how they are connected together must be clearly explained °
- (10%) 七、 Describe the principle of operation of the following medium access control methods as used in LANs:
(i) Token Ring (ii) CSMA/CD °
- (5%) 八、 Name five different data-entry devices used in a factory environment °
- (5%) 九、 What are the major problems regarding operating computer devices in a factory environment?