

Time: 3 hours

Max Marks: 80

[16]

[6+10]

[16]

## Answer any FIVE Questions All Questions carry equal marks \*\*\*\*

- 1. Give a broad classification scheme of computers. Explain each type in brief.
- 2. (a) Define multiprogramming. Explain how multiprogramming ensures effective utilization of main memory and CPU?
  - (b) Explain the term 'Ready', 'Blocked' and 'Running' in context of multiprogramming. [10+6]
- 3. (a) Draw a Flowchart for the following The average score for 3 tests has to be greater than 80 for a candidate to qualify for the interview. Representing the conditional logic for generating reject letters for all candidates who do not get the required average and interview call letters for the others.
  - (b) Explain the basic structure of C program.
- 4. (a) Write a program to sort the set of strings in an alphabetical order
  - (b) How are multidimensional arrays defined? Compare with the manner in which one-dimensional arrays are defined. [12+4]
- 5. What do you mean by functions? Give the structure of the functions and explain about the arguments and their return values. [16]
- 6. (a) List out the similarities and differences between structures and Unions.
  - (b) What is the general format of a union? Declare a union and assign values to it. Explain the process of accessing the union members. [8+8]
- 7. Write a program to convert a postfix expression to a fully parenthesized infix expression. For example, AB+ would be transformed in to (A+B) and AB+C- would be transformed into ((A+B)-C). [16]
- 8. Write a biojava program to find ORF.

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