

R18

Code No: 152AF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year II Semester Examinations, November/December - 2020

PROGRAMMING FOR PROBLEM SOLVING

(Electrical and Electronics Engineering)

Time: 2 hours

Max. Marks: 75

Answer any five questions  
All questions carry equal marks

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- 1.a) List and brief various bitwise operators available in C.
  - b) Differentiate between while and do-while statements in C. [7+8]
  - 2.a) What is a dynamic array? Explain how to create and process a dynamic array with an example program.
  - b) What is the difference between an array and a string? Give examples. [7+8]
  3. List and explain various commonly used pre-processing directives in C with an example program. [15]
  - 4.a) What is a function? Explain various ways of declaring, defining and invoking a function in C.
  - b) Write a C program to find the factorial of a number using recursive functions. [7+8]
  5. Devise an algorithm for bubble sort and explain with an illustration. [15]
  - 6.a) Describe all the variants of two-way selection statements in C with clear syntax and example.
  - b) What is void statement? Why and when it is needed? [8+7]
  - 7.a) What are self-referential structures? Give an example and its purpose.
  - b) How to pass an entire structure to a function? Illustrate with an example C program. [7+8]
  - 8.a) Write the syntax of ftell() and rewind() functions in C and explain the same.
  - b) Discuss the significance of the file offset pointer when a file is read by different file handling functions. [7+8]

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