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Name.....

Reg. No.....



**COMBINED FIRST AND SECOND SEMESTER
B.TECH. (ENGINEERING) DEGREE EXAMINATION
DECEMBER 2008**

CS 04 108 – COMPUTER PROGRAMMING IN C

(CS, IT, PT)

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all the questions.

Part A

- I. (a) Define an algorithm. Write an algorithm for finding the biggest of three numbers.
(b) What is time complexity of algorithms? Give example.
(c) Explain input and output statements in C.
(d) Explain any *two* decision-making statements in C.
(e) Write a C program for concatenation of two strings without using built in functions.
(f) Explain FILE concepts in C.
(g) Explain functions of operating systems.
(h) What is top down modular programming?

(8 × 5 = 40 marks)

Part B

- II. (a) (i) Explain functional unit of a computer system.
(ii) Discuss different Operating Systems.

(7 + 8 = 15 marks)

Or

- (b) (i) Explain the procedure to measure the time complexity of algorithms.
(ii) Explain different programming paradigms.

(7 + 8 = 15 marks)

- III. (a) (i) Write C program to arrange the given numbers in descending order.
(ii) Explain Iterative statements with example.

(10 + 5 = 15 marks)

Or

Turn over

- (b) (i) Discuss various storage classes in C.
- (ii) Discuss expression evaluation with example.

(10 + 5 = 15 marks)

- IV. (a) (i) Explain pointers in C. Give suitable example.
- (ii) Discuss parameter passing techniques.

(10 + 5 = 15 marks)

Or

- (b) (i) Explain Union and Structure concepts in C with example.
- (ii) Discuss dynamic memory allocation.

(10 + 5 = 15 marks)

- V. (a) (i) Explain different types of File organization.
- (ii) Explain fprintf and fscanf statements in C.

(10 + 5 = 15 marks)

Or

- (b) (i) Explain command line arguments.
- (ii) Explain UNIX operating systems.

(5 + 10 = 15 marks)

[4 × 15 = 60 marks]