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## COMBINED FIRST AND SECOND SEMESTER 393770 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?

 $(8 \times 5 = 40 \text{ marks})$ 

## Part B

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

(7 + 8 = 15 mark)

Or

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

(7 + 8 = 15 mark)

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

(10 + 5 = 15 mark)

	(b)	(i)	Discuss various storage classes in C.	
		(ii)	Discuss expression evaluation with example. $(10 + 5 = 15)$	marks)
	Or	r c	Explain pointers in C. Give suitable example.	
IV.	(a)		Discuss parameter passing techniques.	
		(ii)	Discuss parameter passing rectiniques. $(10 + 5 = 15)$	marks)
			ON DATES - COMPUTATION OF ACCUMING IN C	
	(b)	(i)	Explain Union and Structure concepts in C with example.	
		(ii)	Discuss dynamic memory allocation.	
Marks	00,	[ ; m	(10+5=15	marks)
V.	(a)	(i)	Explain different types of File organization.	400
		(ii)	Explain fprintf and fscanf statements in C. $(10 + 5 = 15)$	marks)
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		(ii)	Explain UNIX operating systems. I all singulates the trigger and the systems are trigger and the systems.	et .
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(10 + 5 = 15 masks)