ANNA UNIVERSITY OF TECHNOLOGY, COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : DEC 10 / JAN 11

REGULATIONS : 2008

FIRST SEMESTER

080230001 - FUNDAMENTALS OF COMPUTING AND PROGRAMMING

(COMMON TO ALL BRANCHES)

ME : 3 Hours   Max. Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. Mention the characteristics of Computer.

2. Convert the Binary to Hexadecimal number:

   $1100\ 0110_{(2)}$

3. Difference between RAM and ROM.

4. Why computer is called an idiotic genius?

5. Define Software and mention its types.

6. List any two constraints on real - time operating systems.

7. Name the phases of Software Development life cycle.

8. Differentiate a Compiler and Interpreter.

9. Define a Pseudocode.

10. Draw a flow chart to trace the larger of two integers.

11. Write an algorithm to compute the factorial of a number.

12. Mention the features of Word Processor.

13. Define a structured programming language.

14. Categorize the operators used in C.

15. Write Bitwise Operator with example.

16. Write Ruler for defining Real Constants.

17. Difference between Call by Reference and Call by Value.

18. Write the syntax for pointer to Structures.

19. Differentiate Structure and Union.

20. Explain two dimensional array.

PART - B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. a) With the help of a Block diagram, explain the computer organization in detail. (8)

    b) Convert the following numerals into their Binary equivalents: FAC_{16}, 561_8 (4)

22. Summarize various services offered by Internet. Analyze the architecture of today's Internet and its applications. Identify necessary demands and requirements.

23. a) Mention the guidelines in detail while drawing a flowchart and list out the merits and demerits of flowcharting. (8)

    b) Write a Pseudocode to find the given year is a leap year or not. (4)

24. a) Write a C Program to Count numbers of 0's , 1's and blank spaces and other character? (8)

    b) Define arithmetic operator and its types with example. (4)

25. a) Write a C Program to read and write employee and their data of joining using nested structure. (8)

b) Write a C program that performs matrix addition. (4)

26. a) Write the characteristics and qualities of a good algorithm. (6)

b) Describe the application software packages. (6)

27. a) Explain in detail about managing input and output operators. (6)

b) Write a C Program to determine whether a given numbers in odd or not using if else statement. (6)

28. a) Explain the role of C processor and describe file inclusive directive. (6)

b) How are pointer declared and initialized? How is the Value of variable accessed using pointer? (6)

***** THE END *****