

L 1107

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2006.

First Semester

Civil Engineering

GE 1102 — FUNDAMENTAL OF COMPUTING

(Common to All Branches except Marine Engineering)

(Regulations 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out some of the important characteristics of a computer.
2. Convert 11010011_2 to hexadecimal.
3. Write the EBCDIC coding for the word ZONE (use hexadecimal notation). How many bytes will be required?
4. Subtract 0111000_2 (56_{10}) from 1011100_2 (92_{10}) using complementary methods.
5. List out some of the key functions performed by the system software of a computer system.
6. What are the advantages of pseudocode?
7. What are trigraph characters? How are they useful?
8. Write down the syntax for the following looping structures (a) For loop
(b) While loop.
9. What is a pointer variable?
10. What are the different forms of macro substitution?

PART B -- (5 × 16 = 80 marks)

11. (i) Write a C program to perform matrix addition and subtraction. (10)
- (ii) Differentiate structure and union. Give an example to illustrate the access fields of them. (6)
12. (a) Explain the characteristic features of various generation of computers. (16)

Or

- (b) (i) (1) Convert $(42)_{10}$ to binary equivalent. (2)
- (2) Convert $(428)_{10}$ to hexadecimal equivalent. (2)
- (3) Find the decimal equivalent of the binary 110.101. (3)
- (4) Find the decimal equivalent of the hexadecimal 2B.C4. (3)
- (ii) Explain any two input devices. (6)
13. (a) (i) What is a flow chart? What are the basic symbols used in flow charting? Give their pictorial representation. (8)
- (ii) Draw flow chart for (1) sorting an array (2) generate fibonacci series. (8)

Or

- (b) (i) Difference between compiler and interpreter. (4)
- (ii) Differentiate machine language and high level language. (4)
- (iii) Write an algorithm for division of binary numbers.
14. (a) Show the structure of a spreadsheet. Explain how values are entered in spreadsheet. List any 6 functions available.

Or

- (b) What is word processing package? List out some of the key features supported by the modern word processing packages.

15. (a) Write a C function to find the length of a string (do not use library function). Write a program to read and store 5 name in an array and print them in reverse using function.

(10)

Or

- (b) (i) Explain basic structure of C program. (4)
- (ii) Write a C program for request the user to enter a character and displays a message on the screen telling the user whether the character is an alphabet, a digit or any other special character.

(16)

(2)

(2)

(3)

(3)

(6)

in flow

(8)

ibonacci

(8)

(4)

(4)

tered in

eatures