

S.B. Roll No. _____

COMPUTER PROGRAMMING AND APPLICATIONS

3rd Exam/ECE/0264/May'09

Duration: 3 Hrs.

M.Marks: 75

Section A

Do as directed:

15

Fill in the blanks

7.5

- Q1 a. 'C' language has been developed by _____.
- b. If 'a' is an integer variable, then $a = 5/2$ will return value _____.
- c. _____ data items are real data items that provide greater precision than is normally provided by the float real data items.
- d. The _____ statement causes the loop to be terminated.
- e. The continue statement is used to transfer the control to the _____ of the loop.

State true or false

7.5

- a. Like decimal number system, octal and hexadecimal system can also be used in 'c' language.
- b. An identifier / variable name can begin with _____ (underscore)
- c. A break statement cannot be used to exit from a statement block in a switch statement.
- d. The loop in a do..... While structure is executed at least once.
- e. In C, an array of characters is called string.

Section B

Note: Attempt any five questions

5x6

- Q2 i. Draw the flowchart to find the smallest of given three numbers.
- ii. What is a library function? Mention its uses.
- iii. Explain scanf () and printf () function in 'C'.
- iv. Explain the various if structures available in 'C' language.
- v. What happens if the condition in a while loop is initially false? What is the use of break statement? Explain with example.
- vi. How does 'c' handle the values in array internally? Explain with example.
- vii. Differentiate between call by value and call by reference.

Section C

Note: Attempt any three questions

3x10

- Q3. Differentiate between the following with suitable examples.
- structure and union
 - structure and arrays
- Q4. Write a program in 'C' language to multiply two matrices.
- Q5. What do you mean by precedence and associativity of operators? Explain the arithmetic and logical operators with their precedence and associativity.
- Q6. Write a program to solve the following using function ${}^nC_r = \frac{n!}{r!(n-r)!}$
- Q7. Explain the uses of the following software packages
- i. Electronic workbench
 - ii. Circuit maker