

Enrollment No: \_\_\_\_\_

Exam Seat No: \_\_\_\_\_

# C.U.SHAH UNIVERSITY

## Summer Examination-2017

**Subject Name: Fundamentals in Computer Programming**

**Subject Code: 4TE01FCP1**

**Branch: B.Tech (All)**

**Semester: 1**

**Date: 30/03/2017**

**Time: 10:30 To 01:30**

**Marks: 70**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  - (2) Instructions written on main answer book are strictly to be obeyed.
  - (3) Draw neat diagrams and figures (if necessary) at right places.
  - (4) Assume suitable data if needed.
- 

**Q-1 Define the following terms:**

- |                              |     |
|------------------------------|-----|
| a) Computer                  | (1) |
| b) Hardware                  | (1) |
| c) Software                  | (1) |
| d) Operating System          | (1) |
| e) Algorithm                 | (1) |
| f) Program Control Structure | (1) |
| g) Compiler                  | (1) |
| h) Assembler                 | (1) |
| i) Operator                  | (1) |
| j) Type Conversion           | (1) |
| k) Symbolic Constant         | (1) |
| l) Overflow of Data          | (1) |
| m) Pointer                   | (1) |
| n) Storage Class             | (1) |

**Attempt any four questions from Q-2 to Q-8**

**Q-2 Attempt all questions**

- |  |     |
|--|-----|
| a) Explain importance of 'C' in details.                             | (5) |
| b) Write a C program to swap two numbers using third variable.       | (5) |
| c) Draw a flowchart and algorithm to find average of three subjects. | (4) |

**Q-3 Attempt all questions**

- |   |     |
|---|-----|
| a) Write short note on Basic structure of C program.              | (5) |
| b) Write a C program to print the reverse number of given number. | (5) |
| c) Explain implicit type conversion and explicit type conversion  | (4) |



- Q-4**            **Attempt all questions**
- a) What do you mean by C token? Explain each token in details. (5)
  - b) Write a C program for simple calculator using switch statement. (5)
  - c) Differentiate Entry-Controlled loop and Exit-Controlled loop. (4)
- Q-5**            **Attempt all questions**
- a) Explain various operators available in C programming. (5)
  - b) Write a C program to generate fibonacci series upto n numbers. (5)
  - c) What do you mean by recursion? Explain with suitable example. (4)
- Q-6**            **Attempt all questions**
- a) Explain one dimensional array with suitable example. (5)
  - b) Write a C program to check whether the given number is prime or not. (5)
  - c) Difference between structure and union. (4)
- Q-7**            **Attempt all questions**
- a) Explain category of user defined function with suitable example. (5)
  - b) Write a C program to find whether a given sting is palindrome or not. (5)
  - c) Explain bit-field with suitable example. (4)
- Q-8**            **Attempt all questions**
- a) What is DMA? Explain malloc(), calloc(), realloc() and free() function with suitable example. (5)
  - b) What is the command line argument in C programming (5)
  - c) Explain chain of pointer with suitable example. (4)

