

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

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

# C.U.SHAH UNIVERSITY

## Summer Examination-2016

**Subject Name: Fundamentals in Computer Programming**

**Subject Code: 4TE01FCP1**

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

**Semester: 1**

**Date: 29/04/2016**

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

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- a) computer
- b) software
- c) algorithm
- d) flowchart
- e) operating system
- f) compiler and assembler
- g) program control structure
- h) operator
- i) gets() and puts()
- j) getchar() and putchar()
- k) isalpha() and islower()
- l) break and continue
- m) user defined function
- n) pointer

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

**Q-2 Attempt all questions**

- a) Explain basic structure of C program with suitable example. **5**
- b) Draw block diagram of computer system and explain each block in detail **5**
- c) Differentiate between Entry-Controlled Loop and Exit-Controlled Loop **4**

**Q-3 Attempt all questions**

- a) Explain C tokens in detail with suitable example. **5**
- b) Draw a flowchart and algorithm to find maximum of three different numbers. **5**
- c) Explain various types of program control structures with example. **4**



<b>Q-4</b>	<b>Attempt all questions</b>	
	a) Enlist various operators and explain any four operators used in C programming.	<b>5</b>
	b) Write a C program for simple calculator using switch statement.	<b>5</b>
	c) Write a C program to check whether given number is prime or not.	<b>4</b>
<b>Q-5</b>	<b>Attempt all questions</b>	
	a) Enlist types of type conversion and explain with suitable example.	<b>5</b>
	b) Write a C program for simple calculator using else...if ladder.	<b>5</b>
	c) Write a C Program to check whether given number is Armstrong or not.	<b>4</b>
<b>Q-6</b>	<b>Attempt all questions</b>	
	a) Explain one dimensional array with suitable example.	<b>5</b>
	b) Explain storage classes used in C programming	<b>5</b>
	c) Differentiate between structure and union.	<b>4</b>
<b>Q-7</b>	<b>Attempt all questions</b>	
	a) Explain categories of user defined function with suitable example.	<b>5</b>
	b) Explain bit fields with suitable example.	<b>5</b>
	c) Explain chain of pointer with suitable example.	<b>4</b>
<b>Q-8</b>	<b>Attempt all questions</b>	
	a) Explain Command line argument with suitable example.	<b>5</b>
	b) What do you mean by dynamic memory allocation? Explain malloc(), calloc(), realloc() and free() function with suitable example.	<b>5</b>
	c) Explain following functions: fopen(), fclose(), fprintf(), fscanf().	<b>4</b>

