



**DHARMSINH DESAI UNIVERSITY, NADIAD**  
**FACULTY OF TECHNOLOGY**

**BLOCK EXAMINATION (REPEATER)**

**SUBJECT: (CT-213) COMPUTER PROGRAMMING IN C**

<b>Examination</b>	<b>: B.TECH - Semester - II</b>	<b>Seat No.</b>	<b>:</b>
<b>Date</b>	<b>: 05/05/2015</b>	<b>Day</b>	<b>: Tuesday</b>
<b>Time</b>	<b>: 11:00 to 12:15PM</b>	<b>Max. Marks</b>	<b>: 36</b>

**INSTRUCTIONS:**

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

**Q.1 Do as directed.**

- (a) Differentiate structure and union. [2]
- (b) What is purpose of declaration of a variable? Explain with example. [2]
- (c) Justify the output of following program? [2]  

```
main()
{
    int x=100;
    printf("%d\n",10 + x++);
    printf("%d\n",10 + ++x);
}
```
- (d) In response to the input statement  
scanf("%4d%\*d%d",&year,&code,&count);  
Following data is keyed in : **19883745 55**  
What values does computer assign to the variables year, code and count. [2]
- (e) Explain working of following. [4]  
1. switch 2. while 3. strcmp() 4. if

**Q.2 Attempt *Any TWO* of the following questions. [12]**

- (a) Explain basic structure of C Program.
- (b) Explain with example elements of user defined functions.
- (c) What is pointer? Explain with example declaration and initialization of pointer. Explain difference between pass by value and pass by reference.

**Q.3 (a) Write a program to generate following pattern. (Read number of lines from user) [6]**

```
*
*&
*&&
*&&&
*&&&&
```

- (b) Define a structure Pizza to store following details. pizzaSize(small,medium,large), price, total toppings. [6]  
Write a main program to create an order of 5 pizza generate bill with total bill amount and details.

**OR**

**Q.3 (a) Write a program to generate following series [6]**

$$T(X) = (1/X) + (2/X^2) - (3/X^3) + (4/X^4) - \dots \text{ for } n \text{ terms.}$$

Where value of integer X and n will be entered by user.

- (b) Write a program to copy content of "a.txt" file into "b.txt" using file handling functions. [6]