



SN – 472

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I Semester B.C.A. Degree Examination, November/December 2013
(F+R) (Y2K8 Scheme)

Computer Applications

BCA 105: PROGRAMMING CONCEPTS USING 'C'

Time : 3 Hours

Max. Marks : 70/60

- Instructions :**
- 1) Answer **all** the questions.
 - 2) Section '**D**' is applicable for students who got admitted during 2011-12 onwards.
 - 3) **70** marks for students of 2011-12 and onwards.
 - 4) **60** marks for Repeater students prior to 2011-12.

SECTION – A

I. Answer **any ten**, Each carries **1** mark.

(1×10=10)

- 1) What is a structure ?
- 2) What is an algorithm ?
- 3) What is a keyword ?
- 4) Give the syntax for if-else statement.
- 5) Mention any two mathematical functions in 'C'.
- 6) Define string.
- 7) Explain strcpy () with sample code.
- 8) If a = 10, b = 20, what is x if x = a+(++b);
- 9) How to initialise a structure ?
- 10) Define compound statement.
- 11) What is meant by recursion ?
- 12) Guess the output in the given code

```
x = 20;
```

```
while (x>20)
```

```
{
```

```
Print f ("Bangalore university\n");
```

```
x++;
```

```
}
```

P.T.O.



SECTION – B

II. Answer **any five**, each carries **3** marks. **(3×5=15)**

- 13) Explain goto statement with a simple program.
- 14) Write briefly about different types of arrays in 'C' language.
- 15) Write a C program to check the given no is an even or odd.
- 16) State the differences between structure and union ?
- 17) Write a 'C' program to find the GCD of two nos. using recursion.
- 18) Define pointer. Explain with a simple program.
- 19) Discuss briefly about various data types supported by C language.
- 20) Explain briefly about formatted I/O statements in 'C'.

SECTION – C

III. Answer **any five**, each carries **7** marks. **(7×5=35)**

- 21) Explain the differences between call by value and call by reference with simple programs.
- 22) Differentiate between while and do-while with a simple programs.
- 23) a) Define function. Mention its advantages. **3**
b) Write a C program to find x where $x = \frac{1}{2!} + \frac{1}{3!} + \dots + \frac{1}{n!}$.
- 24) Differentiate between structures and unions with a simple programs.
- 25) Explain various storage classes available in 'C' language.
- 26) Explain in detail about various data types available in 'C' language.
- 27) Explain the structure of 'C' language with a simple program.
- 28) What is sorting ? Write a 'C' program to arrange 'n' names in alphabetical order.

SECTION – D

(Only for 2011-12 onwards)

IV. Answer **any one**, each carries **10** marks. **(10×1=10)**

- 29) Discuss various operators supported by 'C' language.
 - 30) Differentiate between goto label and case label with a simple programs.
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