

**DIPLOMA IN COMPUTER SCIENCE AND
TECHNOLOGY (DCSVI)/ADVANCED LEVEL
CERTIFICATE COURSE IN CSE (ACCSVI)**

Term-End Examination

June, 2012

BICS-030 : 'C' PROGRAMMING

Time : 2 hours

Maximum Marks : 70

Note : Attempt any five questions in all. Question No.1 is compulsory.

1. Choose the correct option : 2
- (a) Which punctuation is used to signal the beginning and end of code block ?
- (i) { }
 - (ii) ()
 - (iii) Both (i) and (ii)
 - (iv) None of the above
- (b) Which of the following is allowed in C 2
arithmetic instruction ?
- (i) [] (ii) { }
 - (iii) () (iv) << >>
- (c) Array supports : 2
- (i) Static Memory allocation
 - (ii) Dynamic allocation
 - (iii) Both
 - (iv) None of above

- (d) Char data type takes _____ Bytes to store a variable (in 16 - Bit compiler). 2
- (i) TWO (ii) ONE
 (iii) THREE (iv) FOUR
- (e) If $a = 10$, then if $z = ++a$; the value of z is : 2
- (i) 10 (ii) 12
 (iii) 11 (iv) None of the above
- (f) The range of int is : 2
- (i) 0 - 255
 (ii) -128 to 125
 (iii) -32768 to 32767
 (iv) None of above.
- (g) 'While' is a : 2
- (i) keyword (ii) identifier
 (iii) variable (iv) None of the above
2. (a) Write a C program to check whether a number is armstrong or Not ? 7
- (b) Write a C program to calculate the area of a triangle whose sides are a,b and c. 7
3. (a) Explain the three - level schema architecture of DBMS. 6
- (b) What is data ? How it is differ from information ? Explain by giving a suitable example. Where the information is stored in computer ? 8
4. (a) What is an array ? Write a C program to find transpose of a Matrix. 7

- (b) Write a C program to print the following using loops : 7
- ```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```
5. (a) What is computer ? What are the various characteristics of a computer ? Draw a block diagram of computer ? 8
- (b) Write the syntax of 'while' and 'do while' statements. Also differentiate between them by giving an example. 6
6. (a) What is operator ? Explain various operators in C by giving a suitable example. 7
- (b) Write a C program to calculate the compound interest. 7
7. (a) What is file ? Write a C program to create a file and display its contents. 7
- (b) What are the Key Constraints in DBMS ? Explain each constraints by giving a suitable example. 7
8. Write short notes on (*Any four*) : 3.5x4 = 14
- (a) DDL and DML
  - (b) CAD
  - (c) CAM
  - (d) RDBMS
  - (e) Software
  - (f) Hardware