

**DIPLOMA - VIEP - COMPUTER SCIENCE AND
ENGINEERING (DCSVI)/ADVANCED LEVEL
CERTIFICATE COURSE IN COMPUTER
SCIENCE AND ENGINEERING (ACCSVI)**

00144

**Term-End Examination
June, 2014**

BICS-030 : 'C' PROGRAMMING

Time : 2 hours

Maximum Marks : 70

Note : *Question no. 1 is compulsory. Attempt four more questions from questions no. 2 to 8.*

1. Choose the correct answer : 7×2

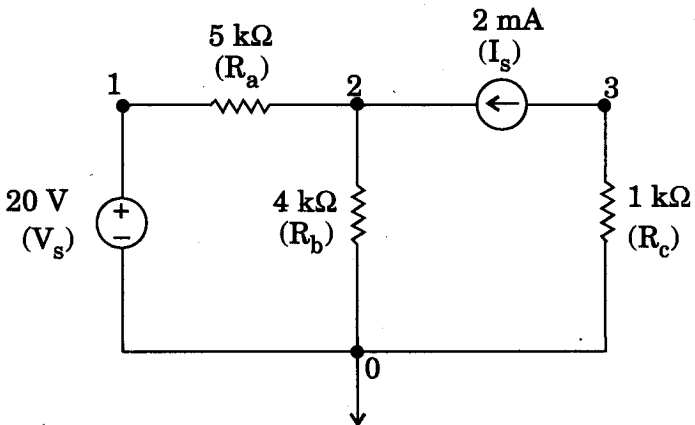
- (a) What is used to read/process a Mark Sense Card ?
- (i) Scanner
 - (ii) Mark Sense Reader
 - (iii) Optical Character Recognition
 - (iv) Laser vision
- (b) What will be the output if you will execute the following 'C' code ?

```
#include <stdio.h >
int main ( )
{
    for (; NULL;)
    printf ("C language");
    return 0;
}
```

- (i) C
 - (ii) Language
 - (iii) C Language
 - (iv) Infinite Loop
- (c) Which function is used in 'C' to release the allocated memory space ?
- (i) deallocate ()
 - (ii) release ()
 - (iii) free ()
 - (iv) delete ()
- (d) What is a 'tuple' ?
- (i) A row or record in database table
 - (ii) An attribute attached to a record
 - (iii) Another name for a table in an RDBMS
 - (iv) Another name for the key linking different tables in a database
- (e) Which escape character can be used to begin a new line in C ?
- (i) \a
 - (ii) \b
 - (iii) \m
 - (iv) \n
- (f) An attribute of a table is
- (i) Property of an entity
 - (ii) Classification of an entity
 - (iii) Action of an entity
 - (iv) None of these

- (g) Which header file is essential for using `strcmp()` function ?
- (i) `string.h`
 - (ii) `strings.h`
 - (iii) `text.h`
 - (iv) `strcmp.h`
2. (a) What do you mean by variable ? How is a variable used in program in 'C' ? 3+4
- (b) Write a program to check whether a given number is prime or not ? 7
3. (a) What is an array ? How are they declared in 'C' ? 3+3
- (b) Write a program in 'C' for addition of two matrices of size $n \times n$. 8
4. (a) Explain the term "Database". What are the primary features of Database ? 2+4
- (b) What are the advantages and disadvantages of Database compared to traditional file system ? 8
5. (a) What are the various commercial data processing techniques ? Explain any three techniques. 3+4
- (b) What are the basic engineering computation techniques available ? Explain at least three techniques. 3+4

6. Student (stid, sname, courseid),
 Course (courseid, coursename),
 Faculty (facultyid, fname, courseid).
- (a) Write a query to insert the values in Student table. 4
- (b) Write a query to declare courseid as foreign key in Faculty table. 5
- (c) Write a query to sort the Course table in ascending order. 5
7. (a) What are the different softwares available in the field of electrical engineering and how are they helpful in designing and analysis of a circuit? 3+5
- (b) Using this circuit, solve the bare-bones minimum problem using PSpice/Matlab / SimuLink. 6



8. Write short notes on any *four* of the following : $4 \times 3 \frac{1}{2}$

- (a) Computer Aided Management (CAM)
 - (b) Control Structures
 - (c) Computer Aided Instruction (CAI)
 - (d) Union in 'C'
 - (e) Operators and expressions
 - (f) Need of Information storage
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