

COMPUTER SCIENCE 2014

Time: 20 Minutes

Max. Marks: 15

OPTION - I (PROGRAMMING USING 'C')

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

1. Choose the correct answer for each from the given options:
- (i) This format specifier is used for 'float' data:
♦ %c ♦ %d ♦ %f ♦ %x
 - (ii) The range of integer value is:
♦ -32768 to +32767 ♦ -30676 to +30678
♦ -34877 to +34878 ♦ -36677 to +36678
 - (iii) This loop uses post testing:
♦ for () ♦ while () ♦ do-while () ♦ none of these
 - (iv) Every C program must have this function:
♦ recursive ♦ input/output ♦ main ♦ printf
 - (v) Library routine are attached to object program through:
♦ compiler ♦ linker ♦ assembler ♦ interpreter
 - (vi) Saving the function's definition under '.h' extension creates:
♦ link file ♦ object file ♦ source file ♦ header file
 - (vii) Unconditional looping is implemented through:
♦ for ♦ while ♦ do-while ♦ none of these
 - (viii) DML queries are also called:
♦ sub queries ♦ joins ♦ action queries ♦ unions
 - (ix) If $a = -15$, the statement $a += 5$ yields:
♦ 15 ♦ -10 ♦ -15 ♦ -5
 - (x) in %5d, 5 is:
♦ integer ♦ hex value
♦ field's width specifier ♦ none of these
 - (xi) 'One-to-many' refers to:
♦ Cardinality ♦ Constraint ♦ Join ♦ Union
 - (xii) This is an arithmetic operator:
♦ & ♦ % ♦ && ♦ <=
 - (xiii) The data type OLE is used for:
♦ numeric data ♦ Text
♦ Object linking & Embedding ♦ none of these
 - (xiv) This is a postfix increment operator:
♦ ++a ♦ a+ ♦ a++ ♦ +a
 - (xv) The extension of a 'C' program is:
♦ .cpp ♦ .tc ♦ .cp ♦ .cc

COMPUTER SCIENCE 2014

Time: 2 Hours 40 Minutes

Marks: 60

OPTION - I (PROGRAMMING USING 'C')

SECTION B (SHORT-ANSWER QUESTIONS)(36)

NOTE: Answer 6 questions from this section.

- Q.2(i) What is the basic structure of a 'C' program?
- (ii) List all iterative control structures in C, explain any one of them with syntax.
- (iii) Write a program in C that swaps two numbers.
- (iv) What is a user defined function? Write its syntax.
- (v) Write a function that returns the cube of any inputted number.
- (vi) Define format specifiers in C-Language.
- (vii) Convert the following mathematical expression into C-Language statement using library functions.
- (i) $z = \frac{x^2 + y^2}{x(p-q)} \left[\frac{q+y}{e^2 + n^2} \right]$ (ii) $x = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$
- (iii) $N = a^3 + 3a^2b + 3ab^2 + b^3$
- (viii) Write a program in C-language that prints the following:
- ```
1
22
333
4444
55555
```
- (ix) What is relationship? State the kinds of relationships used in MS-Access.

### SECTION 'C' (DETAILED- ANSWER QUESTIONS)

**NOTE: Answer 2 question from this section.(24)**

- Q.3(a) Write a program that uses switch statement.
- (b) Explain function prototype with an example.
- Q.4(a) Explain all types of operators used in C.
- (b) Explain the data types used in C-Language with examples. How much space is reserved for each data type in memory?
- Q.5(a) Write the advantages of Database.
- (b) Explain the objects used in MS-Access.

# COMPUTER SCIENCE 2014

Time: 20 Minutes

OPTION - II

Max. Marks: 15

## (PROGRAMMING USING VISUAL BASIC)

### SECTION "A" MULTIPLE CHOICE QUESTIONS

1. Choose the correct answer for each from the given options:
- (i) The Data about Data is:  
♦ Data      ♦ Data dictionary      ♦ Table      ♦ Views
  - (ii) IDE stands for:  
♦ Integrated Development Environment  
♦ Integrated Design Environment  
♦ Integral Development Environment  
♦ none of these
  - (iii) OLE stands for:  
♦ Object Linking and Enhancing  
♦ Object Linking and Embedding  
♦ Object Listing and Embedding  
♦ Object Listing and Enhancing
  - (iv) This control accepts textual information from the user:  
♦ Label      ♦ Textbox      ♦ Caption      ♦ Canvas
  - (v) The collection of homogeneous data item is kept in:  
♦ Function      ♦ Procedures      ♦ Structure      ♦ Array
  - (vi) Multiple input choices are displayed through:  
♦ Function      ♦ Windows      ♦ List box      ♦ Labels
  - (vii) The reserve word 'END SUB' is used to:  
♦ start function      ♦ end procedure  
♦ end program      ♦ none of these
  - (viii) SQL stand for:  
♦ simple query language      ♦ structured query language  
♦ system query language      ♦ none of these
  - (ix) One-to-one, One-to-many and Many-to-many are called:  
♦ Constraints      ♦ Cardinality      ♦ String      ♦ Key
  - (x) Attribute of an Entity is mapped as:  
♦ field      ♦ record      ♦ tuple      ♦ none of these
  - (xi) Bound field is bound to have as associated:  
♦ File      ♦ Record      ♦ Record set      ♦ data
  - (xii) ADO is a gateway to:  
♦ Server      ♦ OS      ♦ database      ♦ none of these
  - (xiii) WHILE WEND is a/an:  
♦ conditional loop      ♦ unconditional loop  
♦ Post-test loop      ♦ none of these
  - (xiv) SQL view in Access is used for:  
♦ Form designing      ♦ Query designing  
♦ Labels      ♦ none of these
  - (xv) Constraints are dropped through:  
♦ DDL      ♦ DML      ♦ DQL      ♦ DCL

# COMPUTER SCIENCE 2014

Time: 2 Hours 40 Minutes

OPTION - II

Marks: 60

## (PROGRAMMING USING VISUAL BASIC)

### SECTION B (SHORT-ANSWER QUESTIONS)(36)

**NOTE: Answer 6 question from this section.**

- Q.2(i) List all Control Structures used in VB. Write syntax of any one of them.
- (ii) Write code to invoke a sub-form the current active form over click operation on a command button.
- (iii) Give two text boxes and a command button labeled as "Copy". Write the code text2 item into text1 item under click on "Copy" button.
- (iv) Differentiate between Primary Key and Foreign Key.
- (v) Write sub routines for a simple calculator over a form.
- (vi) Write a program in Visual Basic to display the following pattern:
- ```
*
**
***
****
*****
```
- (vii) Define the following:
(a) Text Box (b) List Box (c) Combo Box (d) Form
- (viii) Explain event drive programming.
- (ix) Write a program using for loop to print odd number from 1 to 50.

SECTION C (DETAILED- ANSWER QUESTIONS)(24)

NOTE: Answer 2 questions from this section.

- Q.3(a) Explain Selection Control Structures used in VB.
- (b) Explain joins and sub queries in DBMS.
- Q.4(a) Explain functions or subroutines with examples.
- (b) Explain database Constraints.
- Q.5(a) Explain the different data types used in VB.
- (b) Write a program which takes three integers and prints the largest value among them.