

# COMPUTER SCIENCE 2016

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) Names given to variable, constants and functions are called:  
\* header files \* identifiers \* loops \* structures
  - (ii) For () loop is used when we need to perform:  
\* Sequential logic \* Selection logic  
\* Iteration logic \* Parallel logic
  - (iii) This is a statement terminator in C.:  
\* { \* ; \* " \* }
  - (iv) This type of error is detected by the compiler:  
\* Run time \* Logical \* Syntax \* Absolute
  - (v) A pictorial/ graphical representation of program logic is known as:  
\* Flowchart \* Procedure \* Source code \* Algorithm
  - (vi) A program, written in high level language, is known as:  
\* Source code \* Object code \* Uni code \* Executable code
  - (vii) Format specifiers must start with:  
\* % \* & \* / \* \
  - (viii) This is a relational expression:  
\*  $x = y;$  \*  $x == y;$  \*  $x + y;$  \*  $x ++$
  - (ix) The gets () statement is used to input:  
\* Single character data \* Integer data  
\* String data \* Float data
  - (x) To print the values of %lf a and b given below, the following print() statement will be used: float a=3.14; double b=2.532:  
\* printf ("%f%lf",a,b); \* printf ("%Lf%f",a,b);  
\* printf ("%Lf%Lf",a,b); \* printf ("f%Lf",a,b);
  - (xi) The columns in a Microsoft Access Table are called:  
\* Rows \* Records \* Fields \* Entities
  - (xii) A foreign key:  
\* has nothing to do with the primary key  
\* has different values than the primary key  
\* is found in tables that do not have a primary key  
\* is related to the primary key of a different table
  - (xiii) The various components in MS Access are called:  
\* Tools \* Entities \* Properties \* Objects
  - (xiv) A field in DBMS is sometimes called a/an: ---  
\* File \* Attribute \* Record \* Database
  - (xv) A function which invokes itself is called:  
\* Recursive function \* System function  
\* Library function \* Iteration function

# COMPUTER SCIENCE 2016

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.

- 2.(i) Define each format specifier with an example.  
(a) %c (b) %d (c) %f (d) %s  
(e) %lf (f) %ld
- (ii) Determine any six valid or invalid identifiers, in case of invalid, given reason.  
(a) Include (b) Stwenty (c) 5-numbers (d) y/s  
(e) integer (f) f\_name (g) Getch (h) smallest
- (iii) Draw a flowchart that prints the table of any inputted number.
- (iv) What is meant by case-sensitive language? Write the structure of "C" program.
- (v) Write a program in C language to print the number from 4 to 9 and their squares.(using do while loop)
- (vi) Convert the following mathematical expressions into "C" equivalent statements.  
(a)  $A = \pi r^2$  (b)  $x = 3ab^3 + 3a^2b$  (c)  $d = |b^2 - 4ac|$   
(d)  $y = a^2 + b^3 + c^4$  (e)  $X = (a^2 + b^3)^n$  (f)  $J = 1/2 pb$
- (vii) Write the output of the following statement of C-program.  
for (int i = 2; i < 10; i + +)  
{  
printf("%d",i);  
if(i%2 == 0)  
continue;  
printf("\n");  
}
- (viii) What is algorithm? Define different Algorithm Notations:
- (ix) What are the responsibilities of DBA?

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

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

- 3.(a) What is loop? Explain nested for loop with an example.  
(b) What is preprocessor directive? Explain any two preprocessor directives in C with examples.
- 4.(a) Define data files. Describe any two types of data files used in C-program.
- (b) Define operators. Explain different types of operators in C-language.
- 5.(a) Explain the objects of MS Access.
- (b) What is database? What are the advantages of relational database management system (RDBMS)?

# COMPUTER SCIENCE 2016

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 cancel button property belongs to this object:  
\* Button \* Form \* Label \* Textbox
  - (ii) When a condition in "If..... Then statement" tests true:  
\* the next Else statement is activated  
\* the next If statement is activated  
\* the next Then statement is activated  
\* the End If statement is activated
  - (iii) DBMS stands for:  
\* Data Base Management System  
\* De Base Management System  
\* Dot Base Management System  
\* De Bug Management System
  - (iv) This selection process is an example of multiple branches from a single expression:  
\* If....Then \* Select Case \* Do....Loop \* For....Next
  - (v) In the for.....Next statement the default value for the step is: \* -1 \* 0 \* 1 \* 2
  - (vi) The number of Radio Buttons in a Group Box that can be selected at the same time is:  
\* 0 \* 1 \* 2 \* 3
  - (vii) The scope of a variable refers to:  
\* the length of the variable \* the name of the variable  
\* the accessibility of the variable  
\* the data type of the variable
  - (viii) In the statement; Dim Days (7) as String, this part of the array number 7 refers to:  
\* Array name \* Datatype \* Lowerbound \* Upperbound
  - (ix) A foreign key:  
\* has nothing to do with the primary key  
\* has different values than the primary key  
\* is found in tables that do not have a primary key  
\* is related to the primary key of a different table
  - (x) The columns in a Microsoft Access table are called:  
\* Rows \* Records \* Fields \* Entities
  - (xi) A label is used to:  
\* Enter text \* Display text \* Edit text \* Selection option
  - (xii) A sub program which returns a value is called:  
\* Procedure \* Module \* Function \* Routine
  - (xiii) This data type is used to store long text entries in MS Access:  
\* Memo \* Text \* Number \* OLE object
  - (xiv) This control display text the user can edit:  
\* Check box \* List box \* Label \* Text box
  - (xv) The project file of visual basic has one of the following extension: \* .frm \* .vbp \* .ocx \* .rpt

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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.

- 2.(i) Describe any four features of Visual Basic.
- (ii) Define array with syntax and example.
- (iii) What is Combo box? List its properties.
- (iv) List some file controls.
- (v) Write a program in VB to generate the factorial of an inputted number.
- (vi) What is Select Case? Write its syntax.
- (vii) Define Form and state its tools used in VB.
- (viii) What are the characteristics of a primary key?
- (ix) Write a program that reads any character from keyboard and determine whether the entered value is numerical or alphabet.

### SECTION C (DETAILED- ANSWER QUESTIONS)(24)

NOTE: Answer 2 questions from this section.

- 3.(a) What is operator? Explain all operators in VB.
- (b) Explain all data types used in VB.
- 4.(a) What is common dialog control? Explain all methods and properties with exxamples.
- (b) Explain all the objects of MS Access.
- 5.(a) Define Loop. How many types of loops are used in VB?
- (b) What are the advantages of Relational dabatase management system (RDBMS).