COMPUTER SCIENCE HSSC-II
SECTION – A (Marks 15)

Time allowed: 20 Minutes

NOTE: Section–A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 20 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1   **Circle the correct option i.e. A / B / C / D. Each part carries one mark.**

(i)   Which of the following key combinations is used to RUN a C program?

   A.   Alt + F5   B.   Alt + F9   C.   Ctrl + F5   D.   Ctrl + F9

(ii)   **.exe** file is produced by:

   A.   Loader   B.   Compiler   C.   Linker   D.   Editor

(iii)   The scope of a variable refers to:

   A.   Length   B.   Name   C.   Accessibility   D.   Data Type

(iv)   A field-width specifier in a printf() function:
   A.   Controls the margins of the program listing
   B.   Specifies the maximum value of a number
   C.   Specifies how many columns will be used to print the number
   D.   Controls the size of type used to print numbers

(v)   After executing **a = 10 ; b = a ++ ;** the value stored in **b** is:
   A.   9   B.   10   C.   11   D.   12

(vi)   The statement **I + = 3;** has the same effect as:
   A.   I = I + 3;   B.   I = 3;   C.   I – 3 = I;   D.   I = 3 + 3;

(vii)   The logical not (!) operator is a:
   A.   Unary operator   B.   Binary operator
   C.   Ternary operator   D.   Bitwise operator

(viii)   A do-while loop is more appropriate than for loop when:
   A.   The terminating condition occurs unexpectedly
   B.   The body of loop will be executed at least once
   C.   The number of times the loop will be executed is known before the loop is executed
   D.   The program will be executed more than one time

(ix)   An expression in the absence of parentheses, will be evaluated in the following order:
   A.   Assignment, Relational, Arithmetic   B.   Arithmetic, Relational, Assignment
   C.   Relational, Arithmetic, Assignment   D.   Assignment, Arithmetic, Relational

(x)   The parameters specified in function header are:
   A.   Actual parameters   B.   Default parameters
   C.   Command Line parameters   D.   Formal parameters

(xi)   When writing one character at a time to a file the following function is used:

   A.   putc ( )   B.   getc ( )   C.   fputs ( )   D.   fgets ( )

(xii)   What could be the other name for the duplication of data in many different files?
   A.   Data atomicity   B.   Data inconsistency
   C.   Data redundancy   D.   Data dependency

(xiii)   It is not the characteristic of relation:
   A.   Each row is unique   B.   Order of column is significant
   C.   Order of row is insignificant   D.   Columns are atomic

(xiv)   In MS-Access, which of the following forms is used to display single record at a time:

   A.   Columnar   B.   Datasheet   C.   Tabular   D.   None of these

(xv)   The resulting collection of records in a query is called:

   A.   Macro   B.   Dynaset   C.   DFD   D.   Pointer

For Examiner's use only:

Total Marks:	15
Marks Obtained:	

COMPUTER SCIENCE HSSC–II

Time allowed: 2:40 Hours   Total Marks Sections B and C: 60

NOTE: Answer any thirteen parts from Section 'B' and any three questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet–B if required. Write your answers neatly and legibly.

SECTION – B (Marks 39)

Q. 2 Answer any THIRTEEN parts. The answer to each part should not exceed 5 to 6 lines.   (13 x 3 = 39)

(i) Compare machine and high level languages.

(ii) Differentiate source code and object code.

(iii) For what purpose are header files used in C programs? Give an example also.

(iv) Write down the rules for naming variables.

(v) Why is a logical error difficult to detect as compared to syntax error? Give an example also.

(vi) What are the uses of comments?

(vii) What is operator precedence?

(viii) Write down the purpose and syntax of scanf ( ) function.

(ix) Write down the purpose and syntax of while loop.

(x) Distinguish between local and global variables.

(xi) Briefly describe the purpose and syntax of getc ( ) function.

(xii) List the uses of three file access modes in C language.

(xiii) What would be the output of the following program?

```c
#include<stdio.h>
void main (void)
{
        int n =11;
        while (n>=1)
        {
                if(n%2==0)
                        printf("%d\t",n);
                n – – ;
        }
}
```

(xiv) Indicate and correct the errors from the following code (if any)?

```c
#include<stdio.h>
void main (void)
{
        int x , y;
        if ( x = y);
                printf("numbers are equal");
        else
                printf("numbers are not equal);
}
```

(xv) What is the purpose of following data types in MS-Access?

   a.   Text   b.   Auto number   c.   Yes / No

(xvi) Differentiate between primary and foreign key.

(xvii) What is one-to-one relationship? Illustrate with an example.

SECTION – C (Marks 21)

Note: Attempt any THREE questions. All questions carry equal marks.   (3 x 7 = 21)

Q. 3 Create a C program to find the factorial value of any number entered through the keyboard.   **(07)**

Q. 4 a.   Distinguish between the Nested if-else and Switch statement.   **(03)**

     b.   Write down the uses of functions. What is a function prototype? Illustrate with an example.   **(04)**

Q. 5 What is a query? What are the uses of queries in data base? Explain different types of queries.   **(1+2+4)**

Q. 6 a.   Write a brief note on: (i)   Referential Integrity   (ii)   Report   **(04)**

     b.   Define DBMS. Discuss advantages of DBMS.   **(1+2)**