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

Time allowed: 20 Minutes | **Version Number** | 1 | 8 | 8 | 1 |

Note: Section – A is compulsory. All parts of this section are to be answered on the separately provided OMR Answer Sheet which 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 Choose the correct answer A / B / C / D by filling the relevant bubble for each question on the OMR Answer Sheet according to the instructions given there. Each part carries one mark.

1) Which of the following is **NOT** a valid identifier?

    A.   return   B.   myint   C.   myInteger   D.   total3

2) Which operator indicates the address of a variable?

    A.   %   B.   \a   C.   #   D.   &

3) The escape sequence for backslash is:

    A.   \   B.   \b   C.   \\   D.   \t

4) _____ is equivalent to $(p >= q)$.

    A. $p < q$ B. $!(p < q)$ C. $p > q$ D. $!p < q$

5) Another term for a computer making a decision is:

    A.   Sequential   B.   Selection   C.   Repetition   D.   Iteration

6) The body of a while loop, with multiple statements, **ends** with a:

    A.   Comma   B.   Semi colon   C.   Right bracket D.   Right brace

7) Function prototype for built-in functions are specified in:

    A.   Source file   B.   Header file   C.   Object file   D.   Image file

8) The scope of variable refers to its:

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

9) Which of the following functions is used to write a **string** to a file?

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

10) A collection of related fields is called:

    A.   Character   B.   File   C.   Database   D.   Record

11) Duplicate data in multiple data files is called:

    A.   Data redundancy   B.   Data manipulation
    C.   Data integrity   D.   Data consistency

12) In an ERD, a rectangle represents:

    A.   Record   B.   Attribute   C.   Entity   D.   Relationship

13) What is the default field size of a text data type in **Access**?

    A.   10   B.   50   C.   20   D.   5

14) Which row in a design grid determines the records **selected** in a query?

    A.   Show   B.   Criteria   C.   Field   D.   Sort

15) How many layouts of MS Access reports are there?

    A.   2   B.   3   C.   4   D.   5

COMPUTER SCIENCE HSSC–II

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

NOTE: Answer any **Seven** parts from Section 'B' and 'C' any **three** questions from Section 'D' 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 21)

Note:	Section – B consist of Part – I (Programming Using C Language)

Q. 2   **Answer any SEVEN parts. All questions carry equal marks.**   **(7 x 3 = 21)**

(i)   Describe any three characteristics of high level programming languages.

(ii)   Define header files and write their uses in C programs.

(iii)   List different types of errors. Which one is the most difficult to locate and remove? Justify.

(iv)   Determine the output of the following code segment:

```
int n, a, b;
n=500;
a=n%100;
b=n/10;
n=n%10;
printf("%d%d%d", n, b, a);
```

(v)   Differentiate between scanf and gets functions.

(vi)   Write a program that prints all the ASCII characters from 1 – 255 using do-while loop.

(vii)   What is a conditional operator? Explain briefly with an example.

(viii)   Trace at least three errors in the following code segment:

```
int k<=15;
while (k< = =)
    {
        Print f ("%d", k);
        K++;
    }
```

(ix)   Compare local and global variables.

(x)   What is file pointer? Why is it used in C language?

SECTION – C (Marks 21)

Note:	Section – C consist of Part – I I (Database)

Q. 3   **Answer any SEVEN parts. All questions carry equal marks.**   **(7 x 3 = 21)**

(i)   Write briefly any three drawbacks of the traditional file approach.

(ii)   What are the tasks performed by DBA?

(iii)   How are field, record and file related?

(iv)   Distinguish between primary and foreign keys.

(v)   Write down the steps to create a table in design view.

(vi)   Briefly explain the concept of referential integrity.

(vii)   Write any three advantages of accessing data using forms.

(viii)   Define a query and also briefly explain its usage in a database.

(ix)   Briefly explain the standard types of reports in MS Access.

(x)   What is sorting? Briefly explain different methods for sorting records in MS Access.

SECTION – D (Marks 18)

Note: **Attempt any THREE questions. All questions carry equal marks.**   **(3 x 6 = 18)**

Q. 4   Write a program that reads temperature and prints a message as given below: **(06)**

Temperature	Message
t>35	It is hot!
t>=20,t< =35	Nice day!
t<20	It is cold!

Q. 5   a.   What is function? Write briefly its importance.   **(1+1)**

     b.   Write a program using a function to calculate the area of a rectangle.   **(04)**

Q. 6   a.   What is a database? Briefly explain DBMS.   **(1+1)**

     b.   Explain any four field data types available in MS Access.   **(04)**

Q. 7   a.   What is the use of wildcards option in a query?   **(02)**

     b.   What are relationships? Discuss different types of relationships with examples.   **(1+3)**