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) What does IDE stand for?

   A. Integrated Development Environment   B. Integrated Dual Environment
   C. Inter Development Environment   D. Inter Dual Environment

(ii) The result of 17 % 3 is _____

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

(iii) The equivalent statement of $sum = sum - num$ is_____

   A. $sum = -num$ B. $sum = num-$ C. $sum-=num$ D. $sum = --num$

(iv) Which of the following data type can store up to 255 characters only?

   A. Number   B. Memo   C. Date/Time   D. Text

(v) To write a single character to a file which of the following function will be used?

   A. putc   B. puts   C. getc   D. gets

(vi) A collection of data containing information about a particular entity stored in an efficient and compact manner is called_____

   A. DBMS   B. Data   C. Record   D. None of these

(vii) What do the C statements end with?

   A. Comma   B. Colon   C. Semi colon   D. Full stop

(viii) Which part of C will signal an error message if there is no main ( ) function in a program?

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

(ix) Which statement is most helpful when we have more than two actions to be taken based on different conditions?

   A. If statement   B. Else if statement
   C. Switch statement   D. None of these

(x) Which of the following objects is used to gather selected information from a database?

   A. Form   B. Query   C. Table   D. Reports

(xi) Which of the following is **NOT** a valid function declaration?

   A. int avg3(int a, int b, int c)   B. int 3avg(int a, intb, int c)
   C. int avg3(int, int, int)   D. int avg_3(int a1, int a2, int a3)

(xii) The getche ( ) is defined in the following library file _____

   A. stdio.h   B. conio.h   C. string.h   D. math.h

(xiii) On successfully closing a file fclose ( ) returns _____

   A. NULL   B. 0(Zero)   C. 1(One)   D. FILE Pointer

(xiv) What is a diagrammatic way of representing the relationship between the entities in a database?

   A. Flow chart   B. ERD   C. DFD   D. Algorithm

(xv) _____ should be matched to the type of variable you want to print or read.

   A. Variable type   B. Variable name   C. Format specifier   D. Escape sequence

For Examiner's use only:

Total Marks: 15

Marks Obtained:

—— 2HA 1212 ——

COMPUTER SCIENCE HSSC–II

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

NOTE:-   Section B and C comprise pages 1-2. 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   Attempt any THIRTEEN parts. The answer to each part should not exceed 5 to 6 lines.   (13 x 3 = 39)

(i)   a.   What type of error is most difficult to find and why?   01
       b.   What are language processors and their usage?   02

(ii)   Write the output of the following program: 03

```
# include < stdio.h >
# include < conio.h >
void main(void)
{
        int k=0;
        while(k<=5)
        {
                printf("%3d %3d \n",k,10-k);
                k++;
        }
        getche( );
}
```

(iii)   What is meant by normalization? Give two advantages of normalization.   02+01

(iv)   List the types of operators used in C language. Write briefly about any two of them with examples. 03

(v)   Write a C program that calculates the sum of the integers for each integer and gives the
        following output: 03

Integer	Sum
1	1
2	3
3	6
4	10
5	15

(vi)   Differentiate between the if-else and the switch statements with example.   03

(vii)   Give two differences between Local and Global variables.   03

(viii) What is the purpose of the following functions:
        a.   strlen   01
        b.   pow( )   01
        c.   fgets   01

(ix)   Write any three advantages of using a form.   03

(x)   What is meant by function definition and function declaration?
        Give example of function definition and declaration.   03

(xi)   What is an Entity?   03

(xii)   What is the use of format specifier in C language program?
        Also give two examples of format specifier.   03

(xiii) Following table show the records of 4 students in a class:

Student

Roll No.	Name	Class	Phone	Marks Obtained	Percentage
1	Amir	XII	5517898	425	80%
2	Naseer	XII	5438922	365	68%
3	Shahid	XII	6786554	498	92%
4	Zubair	XII	7865532	289	47%

a. Select appropriate **PRIMARY** key for the above table.   01

b. Write query that gets the Name, Marks and Percentage of **ROLL NO 3**.   02

(xiv) Define the following:

a. Compiling   01

b. Linking   01

c. Execution   01

(xv) Write program that prints the table of any number by using for loop.   03

(xvi) Differentiate between while and do-while loop with examples.   03

(xvii) List the tasks of Database Administrator.   03

SECTION – C (Marks 21)

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

Q. 3   a.   Differentiate between user defined and built-in-function.

Give examples of user defined and build-in-function.   05

    b.   Why is break statement used in switch case statement?   02

Q. 4   Wrtie a program in C-language which accepts the weight in pounds and converts it into kilograms by using a function. The relationship between pounds and kilograms is as under:

1 pound = 0.4536 kg   07

Q. 5   a.   Write a C program that will print the following pattern: 04

```
1
1  2
1  2  3
1  2  3  4
1  2  3  4  5
```

    b.   What is the purpose of gets and puts statements in C language?   03

Q. 6   a.   How many types of comments are used in a C program? Explain with example.   04

    b.   What meant by pre-processor directives?   03

—— 2HA 1212 ——