Roll No. _____ *To be filled in by the candidate* | **(For all sessions)**

Computer Science (Essay Type)

Time: 2:10 Hours

Marks: 60

Section-I (MS-ACCESS)

2. Write short answers of any six parts from the following.　　　　2 x 6 =12

   i. List two properties of relation.
   ii. What do you mean by primary key?
   iii. Define data modeling.
   iv. What is cardinality?
   v. How is MS-ACCESS loaded?
   vi. What are reports?
   vii. What is Join? Write its purpose.
   viii. Write uses of query.
   ix. Write two advantages of using a microsoft ACCESS IDE.

(C-Language)

3. Write short answers of any six parts from the following.　　　　2 x 6 =12

   i. Why is C known as strongly typed language?
   ii. Describe header file.
   iii. Write shortcut key to run a C-program.
   iv. Give any four examples of valid variable names.
   v. Differentiate between constant and variable.
   vi. What is high level language?
   vii. Determine the output of the following code segment:

   ```
   int  m=0,  n=5;
      if(m%n>1)
   printf("success");
      else
   printf("Failure");
   ```

   viii. Find errors in the following code

   ```
   int P=20
   if( P ≥ 5 )
   printf("OK");
   ```

   ix. Write an expression in C-language for the given statement: age is from 18 to 25.

4. Write short answers of any six parts from the following.　　　　2 x 6 =12

   i. Write the syntax of printf and scanf functions.
   ii. Define the term stream in context of file handling.
   iii. What is meant by character input in C-programming language?
   iv. Find the errors in the following code segment.

   ```
   a=10;
   Avg=0;
   While(a<=10);
   Avg+=a
   ```

   v. Trace the output of the following piece of code.

   ```
   for(int x=1;x<=10;x=x+4)
      printf("%d\n",x);
   ```

   vi. Determine the output of the following code segment.

   ```
   int j=5;
   While(j<=15)
   {
       printf("Pakistan\n")
       j=j+2;
   }
   ```

   vii. Write down any two benefits of functions.
   viii. What is meant by scope of variable?
   ix. Enlist escape sequences used for different purposes.

Section -II (MS-ACCESS)　　　　8x1=8

Note: Attempt only one question from the following.

5. Write four major components of database system.　　　　08
6. Define functional dependency. How do partial dependencies affect a relation?　　　　08

Section -III (C-language)　　　　8x2=16

Note: Attempt any two question from the following.

7. Define programming language. Discuss two main types of programming languages.　　　　08
8. What is control structure? Briefly describe basic control structures of C program.　　　　08
9. Write a program that prints odd numbers between(1 to 100) using for loop.　　　　08