200241

BISE Gujranwala
Model Paper

Subject: Computer Science
Time = 20 Minutes

Inter Part-II Annual 2024
Marks = 15

OBJECTIVE

Q#1: Choose one of the multiple options that is correct.

(MS-ACCESS)

i. Which of the following model is more flexible:
    a) Network data model   b) Hierarchical data model
    c) Relational data model   d) Object data model

ii. A table must have
    a) Primary key   b) Secondary key
    c) Composite key   d) Sort key

iii. In ERD model, the relationship between two entities is represented by a(n):
    a) Diamond symbol   b) Rectangular box
    c) Oval symbol   d) Line

iv. In 3NF, a non-key attribute must not depend on a(n):
    a) non-key attribute   b) key attribute
    c) composite key   d) sort key

v. Which of the following object of database is used to retrieve data from database?
    a) Queries   b) Forms
    c) Reports   d) Tables

vi. To find four character name starts with H, the criteria is specified as:
    a) H*4   b) H?4
    c) H????   d) H####

(C-LANGUAGE)

vii. .exe file is produced by:
    a) Compiler   b) Interpreter
    c) Linker   d) Loader

viii. a += b is equivalent to:
    a) b += a   b) a =+b
    c) a = a + b   d) b = b + b

ix. The valid equivalent C statement of area = πr^2 :

    a) $\pi \times r^2$ b) $\pi * r^2$
    c) $\pi * r \wedge 2$ d) $\pi * r * r$

x. Which of the following in NOT a control structure?

    a) Sequence   b) Selection
    c) Repetition   d) Database

xi. In which loop, semicolon(;) must be placed at end of its syntax?

a) for loop   b) while loop

c) do-while loop   d) for-each

xii. Memory is allocated to a local variable at the time of its:

a) declaration   b) destruction

c) definition   d) first reference

xiii. Which of the following is true about a function call?

a) Stops the execution of the program

b) Transfer control to the called function

c) Transfer control to the main function

d) Resumes the execution of the program

xiv. On successfully closing a file, the fclose() returns:

a) NULL   b) 0 (zero)

c) 1 (one)   d) FILE pointer

xv. Which of the following mode open only an existing file for both reading and writing?

a) "w"   b) "w+"

c) "r+"   d) "a+"

(VISUAL BASIC)

vii. Identify invalid variable name?

a) _num   b) Int

c) 01_num   d) num_01

viii. a <> b is equivalent to:

a) a > b   b) a < b

c) NOT(a = b)   d) a < b AND a > b

ix. The valid equivalent VB statement of area = πr^2:

a) π x r^2 b) 3.14 * r^2

c) π * r ^ 2   d) 3.14 * r * r

x. All of the followings are examples of controls EXCEPT:

a) Label   b) Button

c) TextBox   d) Caption

xi. In which loop body run at least once?

a) FOR .. NEXT   b) WHILE .. WEND

c) DO .. LOOP .. WHILE   d) DO .. UNTIL .. LOOP

xii. Which of the following function is used to convert numeric value into string:

a) Val   b) IntToStr

c) Str   d) String

xiii. Which of the following is true about a function call?

a) Stops the execution of the program

b) Transfer control to the called function

c) Transfer control to the main function

d) Resumes the execution of the program

xiv. Which event is not related to Label control?
a) Click   b) Load
c) DblClick   d) Change

xv. The Stretch property is related to control:
a) Picture   b) Image
c) Form   d) Button

SUBJECTIVE
Section-I

MS-ACCESS
2. Write short answers to any SIX (6) questions: (12)
i. Differentiate between data and information.
ii. Define Primary Key.
iii. What is Cardinality?
iv. Describe functional dependency.
v. Identify candidate keys and select primary key for relation: EMPLOYEE(ID, NAME, CNIC)
vi. What is redundancy?
vii. Write any two data types in MS Access.
viii. Define wildcards.
ix. What is the difference between list box and combo box.

(C-LANGUAGE)
3. Write short answers to any SIX (6) questions: (12)
i. What is an object code?
ii. Name two pre-processor directives.
iii. How does a variable declare? Give an example
iv. What is an arithmetic underflow?
v. Differentiate between unary and binary operators.
vi. Re-write the following code by using conditional operator:

```
if ( x > 5 )
    y=3;
else
    y=4;
```

vii. Find any two errors:

```
int x;
scanf("%d", x);
if (x%2=0)
    printf("Pakistan"),
```

viii. Trace the output:

```
int num=10;
num *= 5;
printf("%d", num);
```

ix. Find the output of the following code segment:

```
int x = 3, y, z ;
y = x = 10 ;
z = x < 10 ;
printf ( "x = %d   y = %d   z = %d", x, y, z ) ;
```

OR

(VISUAL BASIC)
3. Write short answers to any SIX (6) questions:
i. What is object code?
ii. Define algorithm
iii. How a variable is declared in VB ? Give an example
iv. What is arithmetic underflow?
v. Differentiate between unary and binary operators
vi. What is integrated development environment?
vii. Find any two errors
```
Public Sub Message_Click( )
    printf "Welcome to Islamabad"
End Subroutine
```
viii. Define properties window in VB.
ix. Write down the general syntax of InputBox() function.

(C-LANGUAGE)
4. Write short answers to any SIX (6) questions:
i. Define Format specifier.
ii. List the names of two functions used for character input.
iii. What is logical AND operator?
iv. Find any two errors:
```
int x = 2.5;
switch(x){
    case x < 5:
    case 2.5:
}
```

v. Predict the output:
```
for (i=1 ; i<= 20 ; i+=2)
    printf("%d", i);
```

vi. Give an example such that where you prefer to use do-while loop not while loop?
vii. Re-write the following code by using do-while loop
```
for( i=10 ; i>=0 ; i-=2)
    printf("Pakistan Zindabad");
```

viii. Write down a function header statement, that accepts one integer and other decimal point value.
ix. How to declare a pointer variable?

OR

(VISUAL BASIC)
4. Write short answers to any SIX (6) questions:
i. What are control statements?
ii. Draw the flowchart of if-then statements
iii. How a select case help you in coding?
iv. Predict the output:
```
For X=0 to 20 Step 4
    print X
Next
```

v. Write is the output of the following code segment:
```
Dim Marks As Integer = 30
If Marks > 40 Then
    MsgBox "Pass"
Else
    MsgBox "Fail"
End If
```

vi. Find any two errors:
```
Dim N As Integer = 1
While N <= 5 Do
    Print "Hello Friend"
    N++
Wend
```

vii. Re-write the following code by using do-until-loop
```
Dim N As Integer
For N = 1 To 10 Step 2
    Print "Pakistan Zindabad"
Next
```

viii. What is infinite loop?

ix. Differentiate between DO..LOOP..WHILE and DO..UNTIL loop ?

Section-II

(MS-ACCESS)

Note: Attempt any ONE (1) question.

7. Define ER-Diagram. Explain ER-Diagram with the help of an example. (8)

8. Discuss different types of queries in database. (8)

Section-III

(C-LANGUAGE)

Note: Attempt any TWO (2) questions.

7. Write a C-Language program that input ages of three persons and display who is youngest? (8)

8. Write a C-Language program which prints the following pattern by using loop: (8)

```
1
3    5
5    7    9
7    9    11    13
```

9. How is a function call made in a C-Program ? Discuss with an example (8)

OR

(VISUAL BASIC)

Note: Attempt any TWO (2) questions.

7. Write a Visual Basic program that input ages of three persons and display who is youngest? (8)

8. Write a Visual Basic program which prints the following pattern by using loop: (8)

```
1
3    5
5    7    9
7    9    11    13
```

9. How is a function call made in a C-Program ? Discuss with an example (8)