Roll No _____ (To be filled in by the candidate)

(Academic Sessions 2020 – 2022 to 2022-2024)

COMPUTER SCIENCE 224-1st Annual-(INTER PART – II) Time Allowed : 20 Minutes
Q. PAPER – II (Objective Type) GROUP – I Maximum Marks : 15

PAPER CODE = 8833 *LHR-1-24*

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

(MS –ACCESS)

1-1	An example of a wildcard character is :
	(A) & (B) # (C) * (D) "
2	A functional dependency is a relationship between two :
	(A) Attributes (B) Entities (C) Rows (D) Relations
3	A row of a relation is also called :
	(A) Attribute (B) Entity (C) Tuple (D) Field
4	All the hardware costs are considered during :
	(A) Project planning (B) Requirement analysis
	(C) Data analysis (D) Feasibility study
5	The most commonly used database model in current database development is :
	(A) Hierarchical (B) Network (C) Object-oriented (D) Relational
6	Each set of related items in a table is called :
	(A) Form (B) Record (C) Field (D) Query

C-Language   OR   Visual Basic

(C-Language)

7	Format specifier % 4.2 f for value .78962, will produce output :
	(A) 0.78 (B) □□.78 (C) □□□.78 (D) 0.7896
8	In which loop, statement terminator is part of its syntax :
	(A) for (B) do-while (C) while (D) nested loop
9	If $x = 2$ and $y = 3$, what will the output of the following expression : $x < y \; ? \; x : y;$
	(A) 2 (B) 3 (C) 4 (D) 5
10	Another name for built-in function is :
	(A) User-defined function (B) Library function
	(C) Custom made function (D) Customized function
11	The total number of keywords in C is :
	(A) 32 (B) 34 (C) 36 (D) 38
12	The following function is used to copy a string to an array of characters :
	(A) Strcpy (B) Strpcy (C) Strncpy (D) Copy
13	Following format specifier used for string :
	(A) % f (B) % c (C) % d (D) % s
14	Another term for a computer making a decision is :
	(A) Sequence (B) Selection (C) Repetition (D) Iteration
15	The process of identifying and removing errors in program is called :
	(A) Debugging (B) Fixing (C) Updating (D) Modifying

OR

(Turn Over)

(Visual Basic)

1. 7	Statement that initializes and loads a form in memory without displaying it on screen :	
	(A) Load (B) Unload (C) Hide (D) Remove	
8	In Visual Basic, which keyword indicates the starting point of a decision structure :	
	(A) then (B) if (C) start (D) else	
9	The MOD operator is used for :	
	(A) Integer remainder (B) Exponentiation (C) Multiplication (D) Division	
10	Which structure is an example of multiple branches from single expression :	
	(A) If --- Then (B) Select Case	
	(C) For --- Next (D) If --- Then --- Else	
11	All of the following are examples of control except :	
	(A) Property (B) Label (C) Text box (D) Button	
12	If number of iterations are not known in advance, the suitable programming structure is :	
	(A) For --- Next (B) Do --- Loop Until	
	(C) For --- Each Next (D) For --- While	
13	In Visual Basic, a form is another name for a (n) :	
	(A) Object (B) Property (C) Label (D) Window	
14	How many bytes are occupied by long data type in Visual Basic :	
	(A) 4 (B) 8 (C) 12 (D) 16	
15	The rectangle symbol in a flow chart indicates :	
	(A) Process (B) Condition (C) Input (D) Output	

COMPUTER SCIENCE   224 –1ˢᵗ Annual-(INTER PART – II)   Time Allowed : 2.10 hours
PAPER – II (Essay Type)   **GROUP – I**   Maximum Marks : 60

SECTION – I

LHR-1-24

(MS-ACCESS)

2. **Write short answers to any SIX (6) questions :**   **12**

(i)   Define file or dataset.   (ii)   Discuss the role of fixed length field.
(iii)   What are the responsibilities of DBA?   (iv)   Briefly describe one-to-one relationship.
(v)   Define hybrid data distribution strategy.   (vi)   What are the anomalies?
(vii)   Enlist four different layouts of form.   (viii)   Define design view.
(ix)   Briefly describe the role of queries in MS-Access.

C-Language

3. **Write short answers to any SIX (6) questions :**   **12**

(i)   Define keyword with example.   (ii)   What is control string in printf function?
(iii)   Write following statement in C Language code: (iv)   Predict the output of the following code :
Speed not greater than 60.

```
int m = 15 , n = 4;
printf ( " %d  %d " , m %n , n% m );
```

(v)   Write errors in the following code :
```
Float avg;
printf ( "Enter a number : ");
scanf ( "% f", avg );
```

(vi)   Find errors in the following code :
```
Void main ( );
{
float n₁ = 4.5 , n₂ = 7.2
printf ( " % f /t   % f", n₁ , n₂ )
}
```

(vii)   Write name of any four file opening modes.   (viii)   Define stream.

(ix)   Predict output of the following code :
```
printf ( " Hello \n  Pakistan \n " );
printf ( " 123 \t  Over ! " );
```

OR

(Visual Basic)

3. **Write short answers to any SIX (6) questions :**   **12**

(i)   Why Visual Basic is called event-driven language?   (ii)   Write the operating modes of VB?
(iii)   What is project explorer window?   (iv)   What is meant by object methods?
(v)   How can be changed the focus of a control?   (vi)   Enlist four form events.
(vii)   How would you define predefined properties values?   (viii)   How are properties assigned at Runtime?
(ix)   Differentiate string properties values and Boolean values.

C-Language

4. **Write short answers to any SIX (6) questions :**   **12**

(i)   Write the syntax of nested if statement.   (ii)   Differentiate for ( ) loop and while ( ) loop.
(iii)   Predict the output of the following   (iv)   Convert the following while ( ) loop into
code segment and draw a flow chart :   for ( ) loop :
```
char g = 'M';
if ( g == 'M' )
printf ( " Male");
else
printf ( " Female " );
```
```
int i = 5;
while ( i < = 10 )
{
printf ( " % d \n ", i );
}
```

(v)   Predict the output of the following code segment :
```
int x = 1;
while ( x + + < = 5 )
printf ( " %d \ n ", x );
```

(vi)   Write two important points to use functions in C-language program.
(vii)   What are two types of function arguments?
(viii)   Differentiate scope of a local and global variable.
(ix)   What is the purpose of void used in the following function declaration;
void counter (void) ;

OR

(Visual Basic)

4. **Write short answers to any SIX (6) questions :** **12**
   (i) What is the purpose of 'val' function?
   (ii) Why it is important to declare a variable before you use it?
   (iii) Write the purpose of input box and text box.
   (iv) Define the control structure.
   (v) Differentiae do-until-loop and do-while-loop.
   (vi) Write the syntax of do-until-loop.
   (vii) What is sentinel value in conditional loop?
   (viii) Differentiate pre-test and post-test loop.
   (ix) Give output of the following code segment :

```
sum = 0
while i < = 5
print i
sum = sum + i
i = i + 1
WEND
```

SECTION – II

(MS ACCESS)

Note : Attempt any ONE question.

5. What is normalization? Explain first normal form. **8**
6. Explain any four data types available in MS-Access. **8**

SECTION – III

Note : Attempt any TWO descriptive answers (either from " C-Language" or from " Visual Basic") of the following questions.

(C – Language)

7. Briefly describe characteristics of high level programming language. **8**
8. Write a program in C-language that inputs a character and displays whether it is vowel or consonant. **8**
9. Write a program that produces the following output using loop : **8**

Number	Square Root
0	0.00
1	1.00
2	1.41
3	1.73
4	2.00
5	2.24

OR

(Visual Basic)

7. Briefly describe characteristics of high level programming language. **8**
8. Write a program in Visual Basic that inputs a character and displays whether it is vowel or consonant. **8**
9. Write a program that produces the following output using loop : **8**

Number	Square Root
0	0.00
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(Academic Sessions 2020 – 2022 to 2022-2024)

| COMPUTER SCIENCE | 224-1st Annual-(INTER PART – II) | Time Allowed : 20 Minutes |
| Q. PAPER – II (Objective Type) | GROUP – II | Maximum Marks : 15 |

PAPER CODE = 8836

LHR-2-24

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

(MS –ACCESS)

1-1	A functional dependency is a relationship between two :			
	(A) Entities	(B) Rows	(C) Relations	(D) Attributes
2	The process of arranging data in a logical sequence is called :			
	(A) Sorting	(B) Summarizing	(C) Data capturing	(D) Classifying
3	Merging the relation is also known as :			
	(A) View entities	(B) View integration		
	(C) View relationship	(D) View constraints		
4	The smallest meaningful unit of data in the database is called :			
	(A) Field	(B) Character	(C) Record	(D) Byte
5	Default field size of text data type in MS-Access is :			
	(A) 20	(B) 30	(C) 40	(D) 50
6	A set of related files created and managed by a DBMS is called :			
	(A) Field	(B) Record	(C) Database	(D) Module

C-Language OR Visual Basic

(C-Language)

7	Total number of keywords in C-Language is :			
	(A) 30	(B) 32	(C) 34	(D) 36
8	In the statement File * fp ; the * represents :			
	(A) Variable	(B) Pointer	(C) Argument	(D) Parameter
9	The statement that activates a function is known as :			
	(A) Function design	(B) Function definition		
	(C) Return type	(D) Function call		
10	If $a = 2$ and $b = 4$, the expression h = ($a > b$) ? $a + b : a * b$; will display output as :			
	(A) 6	(B) 8	(C) 10	(D) 12
11	Format specifier % 5.2 for value 4.1257, will produce the output :			
	(A) □4.12	(B) □4.13	(C) □4.126	(D) □4.1257
12	Preprocessor directives are commands for :			
	(A) Microprocessor	(B) Language processor		
	(C) C-processor	(D) Loader		
13	Switch statement is an alternative of :			
	(A) if-else-if	(B) Nested if-else	(C) for loop	(D) While loop
14	Escape sequence used to beep from speaker in C-Language is :			
	(A) \ a	(B) \ b	(C) \t	(D) \ r
15	In for statement, the expression is executed only once :			
	(A) Validation	(B) Test	(C) Condition	(D) Initialization

OR

(Turn Over)

(Visual Basic)

1. 7	Forms and controls are collectively recognized as :
	(A) Events (B) Objects (C) Properties (D) Methods
8	The Window that is used to establish initial property values for objects is :
	(A) Code Window (B) Property Window
	(C) Form Window (D) Main Window
9	Which operator is used for comparison :
	(A) Unary (B) Binary (C) Arithmetic (D) Relational
10	Which method removes a form from screen and from memory :
	(A) Hide (B) Unload (C) Show (D) Load
11	The statement that activates a function is :
	(A) Function design (B) Function call
	(C) Function definition (D) Function declaration
12	Graphical representation of a program is called :
	(A) Logical chart (B) Binary chart (C) Flow chart (D) E-R chart
13	The programmer usually enter source code into computer using :
	(A) Text editor (B) Compiler (C) Debugger (D) Linker
14	The control structure used to repeat statements is :
	(A) Loop (B) Selection (C) Sequential (D) Logical
15	Image controls hold a graphics that is assigned to :
	(A) Frame property (B) Text property
	(C) Caption property (D) Picture property

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COMPUTER SCIENCE   224 –1st Annual-(INTER PART – II)   Time Allowed : 2.10 hours

PAPER – II (Essay Type)   **GROUP – II**   Maximum Marks : 60

SECTION – I   LHR-2-24

(MS-ACCESS)

2. Write short answers to any SIX (6) questions :   **12**

   (i)   What is indexed sequential file?   (ii)   What is control key?

   (iii)   Differentiate between cardinality and modality.   (iv)   Define repeating groups.

   (v)   What is the purpose of status bar ?   (vi)   What is the purpose of reports?

   (vii)   What is the usage of secondary key in database? Justify with the help of example.

   (viii)   What is the main purpose of " Replicated" data distribution strategy?

   (ix)   Write down any two built-in functions that perform calculation in query.

C-Language

3. Write short answers to any SIX (6) questions :   **12**

   (i)   Define keywords.   (ii)   What is meant by standard output?

   (iii)   Describe pointer variable.   (iv)   What is binary stream?

   (v)   Write a C-Language statement to declare   (vi)   Find any two errors
         a long data type variable.

```
char ch, ch1, sum
ch1 = '2';
ch2 = '6';
```

   (vii)   Find output   (viii)   Find any two errors

```
int x = 7;
int y = 3;
printf ( "% d and % d ", x / y , x % y );
```

```
void main ( );
{
int B = 20;
printf ( " % d ", b );
}
```

   (ix)   Write down the output of the following code :

```
printf ( " Pakistan \t Zindabad \n " );
printf ( " We \t \t Pakistani \t people " );
```

OR

(Visual Basic)

3. Write short answers to any SIX (6) questions :   **12**

   (i)   Define an event in VB.   (ii)   Describe project explorer window.

   (iii)   What are mouse events in VB?   (iv)   Differentiate between design time and runtime.

   (v)   Define property window.   (vi)   Describe three styles of combo box.

   (vii)   What is the purpose of scroll bar control?   (viii)   How does an option button differ from check box?

   (ix)   Why a three letter prefix is used with the names of controls?

C-Language

4. Write short answers to any SIX (6) questions :   **12**

   (i)   Differentiate between while and do-while loops.   (ii)   Define built-in functions with example.

   (iii)   Predict the output of the following   (iv)   Differentiate between "if else" and
         code segment :   " if-else-if" statements.

```
if ( 50 = = 70 )
printf ( " HAPPY");
else
if ( 80 = = 100 )
printf ( " NOT HAPPY " );
```

   (v)   Convert the following while ( ) loop into   (vi)   Predict the output of the following
         for ( ) loop :   code segment :

```
int i = 5;
while ( i < = 10 )
{
printf ( " % d \n ", i );
}
```

```
int c;
for ( c = 1; c < = 10; c = c +2 )
printf ( " %d ", c );
```

(Turn Over)

4. (vii) Write the purpose of function argument.
   (viii) Differentiate between function definition and function declaration.
   (ix) What is the life time of local variable?

OR

(Visual Basic)

4. **Write short answers to any SIX (6) questions :**   **12**
   (i) Define single data type in VB.
   (ii) Describe explicit variable declaration.
   (iii) What is concatenation in Visual Basic?
   (iv) What is Val function?
   (v) Differentiate between + and & in Visual Basic.
   (vi) Write the syntax of While ---Wend loop.
   (vii) What is default property of command button?
   (viii) Describe the purpose of break statement.
   (ix) What is sentinel value?

SECTION – II

(MS ACCESS)

Note : Attempt any ONE question.

5. Define database model. Describe different types of database models.   8

6. Discuss any four data types which are used in MS Access.   8

SECTION – III

Note : Attempt any TWO descriptive answers (either from " C-Language" or from " Visual Basic") of the following questions.

(C – Language)

7. What necessary steps are taken to prepare a C-program for execution? Discuss briefly.   2,2,2,2

8. Write a program in C-language that inputs three numbers and display maximum number.   8

9. Write a program that inputs a number from user and displays table of that number.   8

OR

(Visual Basic)

7. What is IDE? Explain any three components of Visual Basic IDE.   2,2,2,2

8. Write a program in Visual Basic that inputs three numbers and display maximum number.   8

9. Write a program in VB that inputs a number from user and displays table of that number.   8