

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) 00.78 (C) 000.78 (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 : $x \leq y ? x : y ;$ (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) Strncpy (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

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(2)



(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

189-224-I-(Objective Type)-7250 (8833)

SECTION – I

(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: Speed not greater than 60.
- (iv) Predict the output of the following code :

```
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 code segment and draw a flow chart :

```
char g = ‘M’;  
if ( g == ‘M’ )  
printf ( “ Male”);  
else  
printf ( “ Female ” );
```
- (iv) Convert the following while () loop into for () loop :

```
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)

12

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

- (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) Differentiate 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.
6. Explain any four data types available in MS-Access.

8
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. Write a program in C-language that inputs a character and displays whether it is vowel or consonant.
9. Write a program that produces the following output using loop :

8
8
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. Write a program in Visual Basic that inputs a character and displays whether it is vowel or consonant.
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8
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Number	Square Root
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Roll No **Lahore Board-2024** (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 – II

Maximum Marks : 15

PAPER CODE = 8836

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)

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(2)

(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

SECTION – I

(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 a long data type variable.
- (vi) Find any two errors
char ch, ch1, sum
ch1 = '2';
ch2 = '6';
- (vii) Find output
int x = 7;
int y = 3;
printf (“% d and % d ”, x / y , x % y);
- (viii) Find any two errors
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 code segment :
if (50 == 70)
printf (“ HAPPY”);
else
if (80 == 100)
printf (“ NOT HAPPY ”);
- (iv) Differentiate between “if else” and “ if-else-if” statements.
- (v) Convert the following while () loop into for () loop :
int i = 5;
while (i <= 10)
{
printf (“ % d \n ”, i);
}
- (vi) Predict the output of the following code segment :
int c;
for (c = 1; c <= 10; c = c +2)
printf (“ %d ”, c);

(Turn Over)

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(2)

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

230-224-II-(Essay Type)- 37/00

Roll No Lahore Board-2023 (To be filled in by the candidate)

(Academic Sessions 2019 – 2021 to 2021-2023)

COMPUTER SCIENCE 223-1st Annual-(INTER PART – II)

Time Allowed : 20 Minutes

Q. PAPER – II (Objective Type)

PAPER CODE = 8831

Maximum Marks : 15

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 collection of raw facts and figures is called : (A) Knowledge (B) Information (C) Processing (D) Data
2	Which of the following is not a type of database key : (A) Primary key (B) Public key (C) Secondary key (D) Foreign key
3	Customers, cars and parts are example of : (A) Entities (B) Attributes (C) Cardinals (D) Relationship
4	Different attributes in two different tables having same name are called : (A) Synonym (B) Homonym (C) Acronym (D) Mutually exclusive
5	The number of records in a relation is called the --- of the relation : (A) Cardinality (B) Degree (C) Domain (D) Range
6	All of the following are form layout except : (A) Tabular (B) Columnar (C) Justified (D) Relationship

C-Language OR Visual Basic

(C-Language)

7	The extension of C source program is : (A) .h (B) .obj (C) .c (D) .exe
8	Void occupy how many bytes in memory : (A) Zero (B) One (C) Two (D) Four
9	All keywords in C are written in (A) Upper case (B) Title case (C) Lower case (D) Camel case
10	The number of bytes used by float data type in C is : (A) Zero (B) 1 (C) 2 (D) 4
11	Variables are created in : (A) RAM (B) ROM (C) Hard disk (D) Cache
12	The functions used for input and output are stored in : (A) stdio.h (B) conio.h (C) math.h (D) inout.h
13	A compound statement refers to a group of statements enclosed in : (A) () (B) [] (C) < > (D) { }
14	How many types of loop structures are available in C : (A) 1 (B) 2 (C) 3 (D) 4
15	Another name for built-in function is : (A) User-defined (B) Library (C) Custom-made (D) Customized

OR

Please visit for more data at: www.pakcity.org

1. 7	Variable names can not begin with a (n) : (A) Upper case letter (B) Lower case letter (C) Number (D) Underscore
8	How many bytes are occupied by integer data type in VB : (A) 4 (B) 8 (C) 12 (D) 16
9	The expression $100 \bmod 33$ has a value equal to : (A) -1 (B) 0 (C) 1 (D) 2
10	Which programming structure executes program statements in order : (A) Repetition (B) Decision (C) Iterative (D) Sequence
11	In VB, which statement indicates the end of decision structure : (A) END IF (B) END (C) ELSE (D) NEXT
12	All of the following are relational operators except : (A) & (B) < > (C) = (D) > =
13	A loop within loop is called : (A) Outer loop (B) Complex loop (C) Simple loop (D) Nested loop
14	One execution of a loop is known as : (A) Structure (B) Test (C) Iteration (D) Duration
15	If number of iterations are known in advance, the suitable programming structure is : (A) Do loop until (B) For---Next (C) While wend (D) Do until loop

SECTION – I

(MS-ACCESS)

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

12

- | | |
|---|---|
| (i) Differentiate between data and information. | (ii) Define the term table or relation. |
| (iii) What do you mean by redundancy? | (iv) Define referential integrity. |
| (v) List any two advantages of reports. | (vi) Define sorting. |
| (vii) State the use of wild cards. | (viii) How is combo box used? |
| (ix) Write down two responsibilities of database administrator. | |

C-Language

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

12

- | | |
|---|--|
| (i) Define unstructured programming. | (ii) What is constant macro? |
| (iii) Describe linker. | (iv) What are syntax errors? |
| (v) Give two examples of standard identifiers. | (vi) Rewrite the expression <code>a++</code> without using increment operator <code>++</code> |
| (vii) Find errors in the following code.
<code>int a = 5;</code>
<code>int double = 20;</code>
<code>printf(" Result = %d", double)</code> | (viii) Determine the output of the following code segments.
<code>int x = 7;</code>
<code>int y = 3;</code>
<code>printf ("%d and %d ", x / y, x % y);</code> |
| (ix) How a file is closed? | |

OR

(Visual Basic)

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

12

- | | |
|---|--|
| (i) Define unstructured programming. | (ii) What is flowchart? |
| (iii) Describe interpreter. | (iv) What are syntax errors? |
| (v) What is meant by an assignment operator? | (vi) List down any two rules for naming variables. |
| (vii) Define properties window in VB. | (viii) Write the syntax of input box in VB. |
| (ix) Differentiate between source code and object code. | |

C-Language

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

12

- | | |
|--|--|
| (i) Why format specifiers are important to be specified in I / O operation? | (ii) What is the use of <code>getch ()</code> function? |
| (iii) Predict the output of the following code :
<code>int m, n, k;</code>
<code>m =15; n = 20;</code>
<code>k = m + n;</code>
<code>printf (" k = %d ", -- k);</code> | (iv) Determine the output of the following code:
<code>int x = 10;</code>
<code>(x % 2 == 0? printf (" Even") : printf (" odd"));</code> |
| (v) What are the limitations of simple if statement? | |
| (vi) Convert " speed is not greater than 65" into a C-language expression. | |
| (vii) Write down the uses of loop. | |
| (viii) What is the use of goto statement? | |
| (ix) Convert the code given below in do-while :
<code>int m = 10;</code>
<code>for (m = 8; m >= 1 ; m --)</code>
<code>printf (" %d ", m % 2);</code> | |

OR

(Visual Basic)

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

12

- | |
|--|
| (i) What is meant by sequence structure in VB? |
| (ii) Write down limitations of if--- then structure. |

(Turn Over)

Lahore Board-2023 (2)

4. (iii) Define loop. Write two uses of loop.
- (iv) What is the use of NOT operator?
- (v) When should Do --- Until loop be used?
- (vi) Define array, element and subscript.
- (vii) How would you narrate array manipulation?
- (viii) How does an option button differ from check box?
- (ix) What is the purpose of the statement "Unload Me"?

SECTION – II

(MS ACCESS)

Note : Attempt any ONE question.

5. What is file processing system? Discuss any three problems in traditional file processing approach. 8
6. What is database design? Briefly explain the database design process with the help of diagram. 8

SECTION – III

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

(C – Language)

7. Explain multiple "if-else" statement with example. Write down its syntax. Also draw its flow chart. 8
8. Write a program that prints the following series using loop : 8
19 16 13 10 7 4 1
9. Write a note on the following : 8
(a) Local variable scope and life time. (b) Passing parameters to function in C.

OR

(Visual Basic)

7. Explain extended if--then--else structure with example? Write down its syntax. Also draw its flow chart. 8
8. Write a program that prints the following series using loop : 8
19 16 13 10 7 4 1
9. Write a note on the following : 8
(a) Local variable scope and life time. (b) Passing parameter to functions in VB.

189-223-(Essay Type)-36000

Roll No Lahore Board-2022 (To be filled in by the candidate)

(Academic Sessions 2018 – 2020 to 2020-2022)

COMPUTER SCIENCE

222-(INTER PART – II)

Time Allowed : 20 Minutes

Q. PAPER – II (Objective Type)

PAPER CODE = 8831

Maximum Marks : 15

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	Which of the following type of file require largest processing time : (A) Sequential file (B) Random file (C) Indexed sequential file (D) Direct access file
2	CREATE command is used to create a : (A) Table (B) Form (C) Report (D) Query
3	In ERD model, the relationship between two entities is represented by a : (A) Diamond symbol (B) Rectangular box (C) Oval symbol (D) Line
4	In relational database, a table is also called : (A) Tuple (B) Relation (C) File (D) Cell
5	A database consists of various components called : (A) Tool (B) Properties (C) Entities (D) Object
6	How many table views are available in MS Access : (A) 1 (B) 2 (C) 3 (D) 4

C-Language OR Visual Basic

(C-Language)

7	Turbo C ++ can compile (A) C ++ programs only (B) C and C ++ programs (C) Turbo C programs only (D) Turbo C ++ programs
8	Which of the following key is used to save a file : (A) F2 (B) F3 (C) F4 (D) F5
9	The logical not operator, denoted by !, is a : (A) Ternary operator (B) Unary operator (C) Binary operator (D) Bitwise operator
10	Single line comment start with : (A) # (B) // (C) *\\ (D) /*
11	a + = b is equivalent to : (A) b + a (B) a = + b (C) b = b + a (D) a = a + b
12	Which of the following is the simplest form of a decision structure : (A) If Statement (B) Switch (C) If-else-if (D) Nested if
13	Function prototypes for built-in functions are specified in : (A) Source files (B) Object files (C) Header files (D) Image files
14	The set of statement in curly braces in a loop is known as ---- of the loop : (A) Title (B) Header (C) Center (D) Body
15	On successfully closing a file, the fclose () returns : (A) Null (B) 0 (zero) (C) 1 (one) (D) file pointer

(2)

Lahore Board-2022



(Visual Basic)

1. 7	The step-by-step procedure to solve a problem is called : (A) Programming language (B) Algorithm (C) Flowchart (D) Program
8	The rectangle symbol in a flowchart indicates : (A) Condition (B) Process (C) Input (D) Output
9	Visual Basic is a product of : (A) IBM (B) Microsoft (C) Sun System (D) Hewlett
10	In Visual Basic, a form is another name for a (n) : (A) Object (B) Window (C) Property (D) Label
11	Methods characterize an object's : (A) Appearance (B) Value (C) Style (D) Behaviour
12	BackColor, enabled and forecolor are examples of : (A) Properties (B) Objects (C) Methods (D) Parameters
13	Which data type is used to handle a Yes or No response : (A) Short (B) Integer (C) Boolean (D) Date
14	In Visual Basic, which keyword indicates the starting point of a decision structure : (A) Then (B) Start (C) Else (D) If
15	The keyword that marks the end of a Do Structure is : (A) End do (B) Loop (C) Exit loop (D) Exit do

189-222-(Objective Type)- 9000 (8831)

Roll No _____ (To be filled in by the candidate) (Academic Sessions 2018–2020 to 2020–2022)
COMPUTER SCIENCE 222-(INTER PART – II) Time Allowed : 2.10 hours
 PAPER – II (Essay Type) Maximum Marks : 60

SECTION – I

(MS-ACCESS)



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

12

- | | |
|---|---|
| (i) What is entity? Give an example. | (ii) Write the responsibilities of data administrator. |
| (iii) Explain implementation | (iv) List any four components of physical database design. |
| (v) Define referential integrity. | (vi) How partial dependency is differ from transitive dependency? |
| (vii) Define any two layouts of form. | (viii) What is check boxes and radio buttons? |
| (ix) Describe any two bars of MS Access Application Window. | |

C-Language

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

12

- | | |
|---|---|
| (i) Define statement terminator. | (ii) Differentiate between source code and object code. |
| (iii) Write the following statements as single statement.
<code>int x = 5;
 int y = 10;
 int z = 15;</code> | (iv) Find the errors in the following code segment.
<code>int x, y, sum,
 z = x + y;
 printf (" sum = %d ", z);</code> |
| (v) What are comments? | (vi) Write the syntax of print function. |
| (vii) Write two difference between constant and variable. | (viii) Trace the errors in the following code segment.
<code>void main ()
 {
 printf (OK)</code> |
| (ix) Predict the output of the following code segment.
<code>int n, a, b;
 n = 400;
 a = n% 100;
 b = n / 10;
 n = n% 10;
 printf (" Result = %d %d %d ", n, b, a);</code> | |

OR

(Visual Basic)

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

12

- | | |
|---|---|
| (i) Why would a programmer prefer to use high level language? | (ii) Find the error in the syntax
<code>private Sub Object Name- Dblclick ()</code>
Statements:
<code>endsub;
 end</code> |
| (iii) What is the purpose of language processor? | (iv) Write the use of option explicit statement in VB. |
| (v) What is concatenation and when it would be used? | (vi) How can the user continue a very long basic statement to another line? |
| (vii) What is properties of Window? | (viii) Write three steps for creating VB projects. |
| (ix) Why Visual Basic is called even-driven language? | |

C-Language

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

12

- | | |
|--|---|
| (i) Define compound statement. | (ii) Define while loop. |
| (iii) Predict the output.
<code>int a = 1, b = 5;
 if ((a + b) < 6)
 printf (" %d ", b);
 printf (" %d ", a + b);</code> | (iv) Predict the output.
<code>int a;
 for (a = 1; a <= 10; a ++)
 printf (" %d ", a);</code> |

(Turn Over)

Lahore Board-2023

4. (v) Convert the given program in do-while loop.
- ```
int i;
for (i = 3; i <= 39; i += 6);
printf (" % d \ n ", i);
```
- (vi) What is function?  
(vii) Define local variable.  
(viii) Differentiate between Built-in functions and user define functions.  
(ix) What is text stream?

**OR**

### (Visual Basic )

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

12

- (i) Define selection structure  
(ii) What is Select --- Case statement?  
(iii) Write the syntax of IF---Then---Else statement.  
(iv) Find the output of given code.  
a= 6  
b = 7  
if ( a > b ) then print a  
print b  
print ( a + b )  
End  
(v) What is post test loop?  
(vi) Re-write the given statement in while---wend.  
for i = 1 to 10  
print i  
Next  
(vii) Enlist two types of sub-programs.  
(viii) What is standard code module?  
(ix) Differentiate between Exit Sub and Exit function.

### **SECTION - II**

#### (MS ACCESS)

**Note :** Attempt any ONE question.

5. What is File? Explain File types from storage point of view.  
6. How would you define a table? Also write characteristics of tables.

8  
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 is meant by programming language? Discuss different types of programming languages.  
8. Write a program that inputs three numbers and displays the maximum number by using if-else, if statement.  
9. What is for loop? Write down syntax and working of for loop with example.

8  
8  
8

**OR**

#### ( Visual Basic )

7. What is meant by programming language? Discuss different types of programming languages.  
8. Write a program in VB that inputs three numbers and displays the maximum number by using nested if statement.  
9. What is for next loop? Write down syntax and working of for next loop with example.

8  
8  
8

189-222-(Essay Type)-36000



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 | In the relational model, --- is the basic structure in which data is stored :<br>(A) Attribute (B) Record (C) Table (D) Form                     |
| 2   | Different attributes in two different tables having same name are referred to as :<br>(A) Synonym (B) Homonym (C) Acronym (D) Mutually exclusive |
| 3   | Insert command is used to insert :<br>(A) A new table (B) A new record (C) Dependencies (D) A new query                                          |
| 4   | Customers, cars and parts are examples of :<br>(A) Entities (B) Attributes (C) Cardinals (D) Relationships                                       |
| 5   | The manipulated and processed data is called :<br>(A) Object (B) Information (C) Knowledge (D) Data                                              |
| 6   | A database consists of various components called the :<br>(A) Tool (B) Properties (C) Entities (D) Object                                        |

**(C-Language )**

|    |                                                                                                                                   |
|----|-----------------------------------------------------------------------------------------------------------------------------------|
| 7  | The symbol ' = ' represents :<br>(A) Comparison operator (B) Assignment operator<br>(C) Equal to operator (D) Terminal operator   |
| 8  | An if statement inside another if statement :<br>(A) if statement (B) inside if (C) Nested if statement (D) Mid if                |
| 9  | Escape sequence \\ is used to print :<br>(A) New line (B) Backslash (C) Space (D) Tab                                             |
| 10 | A loop inside the body of another loop :<br>(A) while loop (B) for loop (C) Nested loop (D) Infinite loop                         |
| 11 | Void occupy how many bytes in memory :<br>(A) Zero (B) One (C) Two (D) Four                                                       |
| 12 | Formal arguments are also called :<br>(A) Actual arguments (B) Dummy arguments<br>(C) Original arguments (D) Referenced arguments |
| 13 | Which of the following operators has lowest precedence :<br>(A) ! (B) + (C) = (D) ==                                              |
| 14 | getch ( ) is a part of :<br>(A) stdio.h (B) conio.h (C) math.h (D) string.h                                                       |
| 15 | Preprocessor directives are commands for :<br>(A) Microprocessor (B) Language processor (C) C preprocessor (D) Loader             |



**(MS-ACCESS)**

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

12

- |                                           |                                               |
|-------------------------------------------|-----------------------------------------------|
| (i) Who is user/end user?                 | (ii) Define secondary key.                    |
| (iii) Define the term feasibility study.  | (iv) List ingredients of data modeling.       |
| (v) What is Microsoft Access?             | (vi) What is database wizard?                 |
| (vii) Define the term degree of relation. | (viii) List three methods for creating table. |
| (ix) Write any two uses of reports.       |                                               |

**C-Language**



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

12

- |                                                      |                                                               |
|------------------------------------------------------|---------------------------------------------------------------|
| (i) Describe linker and loader.                      | (ii) What is structured programming language?                 |
| (iii) Write the purpose of compiler.                 | (iv) Define identifier.                                       |
| (v) What do you mean by keyword?                     | (vi) Differentiate between declaring and defining a variable. |
| (vii) Find the error in the following code segment : | (viii) What is the output of the following code :             |

|                                                                                           |                                                                                                 |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <pre>int a, b; a = - 10; if ( a &lt; 0 ); b = a * a; printf ( " Result = % f" , b )</pre> | <pre>int a, b, c; a = 10; b = 3; if ( a % b == 1 ) c = 0; else c = 1; printf ( "%d", c );</pre> |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|

- (ix) Predict the output of the following code :

```
int price = 10;
if (price != 10)
price = 0
else
price += 2;
```

**C-Language**

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

12

- What is the use of "getch" function?
- Why is the ampersand character (&) used in scanf function?
- Write the general form of printf function.
- Define nested loop.
- Convert the following code into while loop.  

```
for (int count = 1; count <= 2; count ++)
printf (" count ");
```
- Why is sentinel value used in loops?
- How many ( maximum ) values can a function return using return statement?
- What type of variables are declared outside any function?
- How is a file opened?

**SECTION – II**

**(MS ACCESS)**

**Note : Attempt any ONE question.**

**5. Write notes on any four of the following file types :**

8

- |                    |                        |                       |
|--------------------|------------------------|-----------------------|
| (i) Master file.   | (ii) Transaction file. | (iii) Backup file.    |
| (iv) Program file. | (v) Data file.         | (vi) Sequential file. |

**6. Define functional dependency? How partial dependencies effect a relation?**

8

**SECTION – III**

**Note : Attempt any TWO descriptive answers from " C-Language" of the following questions.**

**( C – Language )**

- Define an error. Describe the types of errors in C programming language.
- Define " if-else-if " statement. Explain its working with syntax, flowchart and example.
- Write a program to print odd numbers from 1 to 10 using while loop.

8

8

8



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 | Which of the following is not a database object :<br>(A) Table (B) Query (C) Query Report (D) MS-Word                                        |
| 2   | Which of the following is used to describe the characteristics of an object :<br>(A) Attribute (B) Relationship (C) Cardinality (D) Modality |
| 3   | Every relation should have :<br>(A) Primary key (B) Candidate key (C) Secondary key (D) Mutually key                                         |
| 4   | The graphical query tool is known as :<br>(A) Query grid (B) Design grid (C) Query form (D) Design form                                      |
| 5   | Which of the following can be a primary key :<br>(A) Last name (B) Salary (C) Customer ID (D) Region                                         |
| 6   | SQL stands for :<br>(A) Sort Query Language (B) Self Query Language<br>(C) Seek Query Language (D) Structured Query Language                 |

**C-Language OR Visual Basic****(C-Language )**

|    |                                                                                                                    |
|----|--------------------------------------------------------------------------------------------------------------------|
| 7  | The case block ends with<br>(A) End Select (B) End Case (C) break (D) Case Else                                    |
| 8  | The scope of variable refers to its :<br>(A) Length (B) Name (C) Accessibility (D) Data type                       |
| 9  | Semicolon is placed at the end of condition in :<br>(A) while loop (B) do-while loop (C) for loop (D) All of these |
| 10 | The function that is used to display output on the screen is called :<br>(A) Printf (B) Scanf (C) Pow (D) Display  |
| 11 | The output of the compiler is called :<br>(A) Library code (B) Source code (C) Linked code (D) Object code         |
| 12 | Variable and constant name can not contain :<br>(A) Number (B) Underscore (C) Letter (D) Period                    |
| 13 | Which of the following character is used to mark the end of string :<br>(A) \o (B) /r (C) \a (D) \n                |
| 14 | Switch statement is an alternate of :<br>(A) nested if (B) if-else (C) nested if-else (D) if                       |
| 15 | Which loop structure always executes at least once :<br>(A) do-while (B) for (C) while (D) All of these            |

**OR**



|      |                                                                                                                                                            |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 7 | Another term used for making a decision is :<br>(A) Sequential (B) Repetition (C) Selection (D) Iteration                                                  |
| 8    | A two dimensional array can view as :<br>(A) One column (B) One row (C) Row, column (D) None                                                               |
| 9    | If step keyword is not used in For --- Next loop, counter variable is incremented by :<br>(A) 0 (B) 1 (C) 10 (D) Unknown                                   |
| 10   | Which of the following is a valid VB data type :<br>(A) Boolean (B) Array (C) int (D) char                                                                 |
| 11   | Writing program in machine language is :<br>(A) Impossible (B) Simple (C) Time consuming (D) Complex                                                       |
| 12   | Use --- to declare variable in VB :<br>(A) Event (B) Identifier (C) Sub (D) Dim                                                                            |
| 13   | When no item is currently selected in a list box, the ' List Index' property is :<br>(A) -1 (B) +1 (C) 0 (D) Null                                          |
| 14   | For 'A = 4 and B = 4, which of the following evaluates to true :<br>(A) $A < > B$ (B) $A < B$ (C) $A > = B$ (D) $A > B$                                    |
| 15   | If number of iterations are not known in advance, the suitable loop is :<br>(A) Do---Loop Until (B) For --- Next<br>(C) For--- each Next (D) For --- While |



## Lahore Board-2019

(2)

### (Visual Basic)

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

12

- (i) What is the use of NOT operator?
- (ii) What is Select ---- Case statement?
- (iii) Differentiate between TO and IS keywords in Case form.
- (iv) When should you use Do Until loop?
- (v) What is counter variable?
- (vi) How is subscript variable written?
- (vii) What is the use of dynamic array?
- (viii) List any two styles of combo box.
- (ix) What do you know about checkbox?



### SECTION – II (MS ACCESS)

Note : Attempt any ONE question.

5. Define ER Diagram. Explain it with the help of an example.
6. Discuss any four methods of modifying a table in MS Access.

8

8

### SECTION – III

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

#### ( C – Language )

7. Describe characteristics of High Level Language.
8. What is Switch Statement? Write its syntax, draw flow chart and explain its working.
9. Write a program that inputs a number from the user and displays the factorial of that number.

8

8

8

OR

#### ( Visual Basic )

7. Describe characteristics of High Level Language.
8. What is Select ----Case structure? Write its syntax, draw flow chart and explain its working.
9. Write a program that inputs a number from the user and displays the factorial of that number.

8

8

8

189-219-(Essay Type)-30500



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 | Which file is used to store information that remains constant for a long time :<br>(A) Data file (B) Master file (C) Transaction file (D) Backup file |
| 2   | An attribute is also known as :<br>(A) Record (B) Row (C) Field (D) Relation                                                                          |
| 3   | Which of the following is used to associate entities with one another :<br>(A) Entity (B) Attribute (C) Relation (D) Relationship                     |
| 4   | In 2NF, which form of dependency is removed :<br>(A) Partial (B) Non-functional (C) Associative (D) Transitive                                        |
| 5   | The output of a query is in the form of a :<br>(A) Form (B) Query (C) Table (D) Macro                                                                 |
| 6   | To find all names start with M from student table, the criteria is :<br>(A) Like " M?" (B) Like " M." (C) Like " M#" (D) Like " M* "                  |

**C-Language OR Visual Basic**



**( C-Language )**

|    |                                                                                                                                   |
|----|-----------------------------------------------------------------------------------------------------------------------------------|
| 7  | The target code produced by the compiler is :<br>(A) Object code (B) Source code (C) Library code (D) Linked code                 |
| 8  | Which of the following is a valid character constant :<br>(A) a (B) '@' (C) "c" (D) =                                             |
| 9  | The format specifier % f is used for :<br>(A) int (B) long (C) double (D) float                                                   |
| 10 | If $x = 2$ and $y = 3$ , what will be the output of the expression : $x > y ? x + y : x * y$ ;<br>(A) 6 (B) 5 (C) 12 (D) 10       |
| 11 | Conditional operator is an alternative of :<br>(A) if (B) if-else (C) switch (D) for                                              |
| 12 | In which loop, statement terminator is a part of its syntax :<br>(A) for (B) while (C) do-while (D) for-each                      |
| 13 | What is the final value of i after executing the code : for ( int i = 1 ; i < 5 ; i += 2 )<br>(A) 7 (B) 5 (C) 6 (D) 9             |
| 14 | What is the variable that is used by function to receive an argument :<br>(A) Expression (B) Parameter (C) Constant (D) Function  |
| 15 | Which of the following function is used to write a character to a file :<br>(A) getc ( ) (B) fputc ( ) (C) putc ( ) (D) fgets ( ) |



**( Visual Basic )****Lahore Board-2018**

|      |                                                                                                                                                                                                                            |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 7 | The output of the compiler is called :<br>(A) Object code                      (B) Source code                      (C) Linked code                      (D) Program                                                       |
| 8    | A project file is saved with the following extension :<br>(A) .frm                      (B) .vbp                      (C) .vb                      (D) .frx                                                                |
| 9    | You can enter data in a control only when it has :<br>(A) Tab order                      (B) Control                      (C) Mask                      (D) Focus                                                          |
| 10   | What is the value of variable R after the following code has been executed :<br>Dim R As Integer<br>R = 14 - 4 * 8 + 12/6<br>(A) - 16                      (B) 14                      (C) - 12                      (D) 8 |
| 11   | In Visual Basic, which statement indicates the end of a decision structure :<br>(A) END                      (B) END IF                      (C) NEXT                      (D) ELSE                                        |
| 12   | For A = 4 and B = 4 , which of the following evaluates to true :<br>(A) A <> B                      (B) A < B                      (C) A >= B                      (D) A > B                                               |
| 13   | What is the value of i after the execution of following code :<br>For i = 2 to 12 step 3<br>Statement in loop<br>Next<br>(A) 14                      (B) 13                      (C) 12                      (D) 11        |
| 14   | A loop within a loop is called :<br>(A) Next loop                      (B) Nested loop                      (C) Outer loop                      (D) Inner loop                                                             |
| 15   | The interval property of timer control is set in :<br>(A) Hours                      (B) Minutes                      (C) Milliseconds                      (D) Seconds                                                    |



**SECTION - I**

**(MS-ACCESS)**

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

**12**

- |                                                                                                            |                                                              |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| (i) Define data redundancy.                                                                                | (ii) Differentiate between master file and transaction file. |
| (iii) Describe foreign key.                                                                                | (iv) Define synonym.                                         |
| (v) What are the database anomalies?                                                                       | (vi) List two advantages of report.                          |
| (vii) Define sorting.                                                                                      | (viii) State the purpose of subform.                         |
| (ix) Identify name of entity and primary key in the following :<br>STUDENT ( Student ID, St name , Group ) |                                                              |

**C-Language**

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

**12**

- |                                                                                                                                |                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| (i) What is the use of main ( ) function in C?                                                                                 | (ii) Distinguish between source code and object code.                                         |
| (iii) Define header files.                                                                                                     | (iv) What is the use of assignment statement?                                                 |
| (v) Differentiate between unary and binary operator.                                                                           | (vi) Compare " getch ( )" and " getche ( )" function.                                         |
| (vii) Trace output of the following code :<br>int x = 0 , y = 5 , z = 4;<br>x = y + z * 5;<br>printf ( " Result = % d " , x ); | (viii) Find errors in following code :<br>void main ( )<br>{<br>printf ( " Pakistan " );<br>} |
| (ix) Trace output of following code :<br>int a = 5 , b = 10;<br>int c = a + b * 2;<br>printf ( " The output is % d " , c );    |                                                                                               |

OR

**(Visual Basic)**

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

**12**

- |                                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| (i) Define source code.                                                                               | (ii) List any two disadvantages of machine language.                                  |
| (iii) List any two properties of form object.                                                         | (iv) Differentiate between text box & label control.                                  |
| (v) Differ between constant and variable.                                                             | (vi) What is the purpose of language processor?                                       |
| (vii) Find output of the following code :<br>DIM res As Integer<br>res = ( 20 + 10 ) / 3<br>print res | (viii) Trace errors in following code :<br>DIM x Integer<br>x = 10 + 5<br>print " x " |
| (ix) Find output of the following code :<br>DIM z As Integer<br>z = 50<br>print z MOD 6               |                                                                                       |

**C-Language**

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

**12**

- |                                                                                                                                 |                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| (i) Write the syntax of if-else statement.                                                                                      | (ii) State the use of goto statement.                                                                                     |
| (iii) Determine the output of the following code :<br>if ( 1 != 2 )<br>printf ( " OK " );<br>else<br>printf ( " Correct it " ); | (iv) Trace the errors in the following code :<br>if ( 7 != 10 )<br>printf ( " Hello " )<br>else<br>print ( " Welcome " ); |





## Lahore Board-2018

4. (v) Write the output of the following code :  
`int i, j = 3;  
for ( i = 1 ; i <= 5 ; i ++ )  
printf ( " \n % d % d " , i , j );`
- (vi) Convert the following code in do-while loop :  
`for ( i = 1 ; i <= 5 ; i ++ )  
printf ( " \n % d " , i );`
- (vii) Define local variable.  
(viii) Define function header.  
(ix) What is text file?



OR

### (Visual Basic )

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

12

- Differentiate between List and List Index property.
- Describe three styles of Combo boxes.
- What does MDI mean?
- How Tool Tip is used in VB?
- Define standard code module.
- Define function argument.
- Write output of following code :  
`AList = UCase ( " AbCdEfG " )`
- Which error is difficult to find and why?
- Define project file.

### SECTION - II

#### (MS ACCESS)

Note : Attempt any ONE question.

5. What is data distribution? Explain three data distribution strategies.
6. Explain eight different data types available in MS Access.

2,2,2,2  
1,1,1,1,1,1,1,1

### SECTION - III

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

#### ( C - Language )

7. What do you know about identifiers? Explain two types of identifiers.
8. Write a program in C, which input year and print either it is leap year or not.
9. Define while loop in C, write its syntax and explain its working.

8  
8  
2,2,4

OR

#### ( Visual Basic )

7. Define errors. Explain types of programming errors.
8. Write a program in VB, which input year and print either it is leap year or not.
9. Define while loop in Visual Basic, write its syntax and explain its working.

2,2,2,2  
8  
2,2,4

189-218-(Essay Type)-26000