

Computer Science (Objective) TUDY.COM (For All Sessions) M

Time: 20 Minutes

Marks : 15

Note: Write Answers to the Questions on the objective answer sheet provided. Four possible answers A, B, C and D to each question are given. Which answer you consider correct, fill the corresponding circle A, B, C or D given in front of each question with Marker or Pen ink on the answer sheet provided.

Rwp-12-23

- 1. In ERD model, the relationship between the two entities is represented by a:
  - (A) Diamond symbol (B) Rectangular box (C) Oval symbol (D) Line
- 2. 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
- 3. The data in table is entered in:
  - (A) Design view (B) Normal view (C) Data sheet view (D) Layout view
- 4. How many are the layout of Form?
  - (A) 2 (B) 3 (C) 4 (D) 5
- 5. Which of the following represents a collection of concepts that are used to describe the structure of a database?
  - (A) Data warehouse (B) Data model (C) Data structure (D) Data type
- 6. Insert command is used to insert:
  - (A) A new table (B) A new record (C) A view (D) Dependencies

C-LANGUAGE

- 7. The function getch ( ) is defined in:
  - (A) Stdio.h (B) String.h (C) Math.h (D) Conio.h
- 8. Which of the following is NOT selection statement?
  - (A) If (B) Switch (C) While (D) If-else
- 9. When condition never becomes false the loop becomes:
  - (A) Infinite loop (B) Continuous loop (C) Finite loop (D) Tested loop
- 10. Function prototypes for built-in functions are specified in:
  - (A) Source files (B) Header files (C) Object files (D) Image files
- 11. C language was developed in:
  - (A) 1969 (B) 1972 (C) 1974 (D) 1977
- 12. To compile a C language program use:
  - (A) F2 (B) Alt+F5 (C) Alt+F9 (D) F3
- 13. Which of the following operator has the lowest precedence?
  - (A) = (B) ! (C) == (D) +
- 14. The symbol "==" represents:
  - (A) Arithmetic operator (B) Relational operator (C) Assignment operator (D) Logical operator
- 15.  $a \neq b$  is equivalent to:
  - (A)  $b \neq a$  (B)  $a = / b$  (C)  $a = a / b$  (D)  $b = b / a$

VISUAL BASIC

- 7. The statement that will immediately terminate a For...next loop is:
  - (A) End for (B) Exit loop (C) End loop (D) Exit for
- 8. The upper bound of array with 10 values is:
  - (A) 01 (B) 1 (C) 9 (D) 5
- 9. Which method causes the control to be re-drawn?
  - (A) Refresh (B) Set focus (C) Visible (D) Move
- 10. The prefix for naming a menu item is:
  - (A) M (B) mnu (C) mne (D) Mn
- 11. The diamond symbol in a flow chart indicates:
  - (A) Input (B) Condition (C) Process (D) Output
- 12. To exit visual basic:
  - (A) Ctrl+Q (B) Alt+T (C) Alt+Q (D) Ctrl+Z
- 13. One can enter data in a control only when it has:
  - (A) Focus (B) Control (C) Tab order (D) Mask
- 14. The expression 3 mod 5 has a value equal to:
  - (A) 2 (B) 3 (C) 1 (D) 0
- 15. The entire select case construct is terminated with:
  - (A) Case else (B) End if (C) End select (D) Stop select

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14. The expression  $3 \text{ mod } 5$  has a value equal to:
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RWP-12-23

2. Write short answers of any six parts from the following:

- i. What is data redundancy? ii. Define synonym.
- iii. What is the role of data administrator?
- iv. How many primary keys can be defined in a table?
- v. Why is list box used in form?
- vi. How referential integrity is attained?
- vii. What do you mean by IDE?
- viii. What is the use of query wizard?
- ix. How does a data base differ from a table?

C LANGUAGE

3. Write short answers of any six parts from the following:

- i. What is high level language?
- ii. Distinguish between compiler and interpreter.
- iii. Why the logical error is the most difficult to trace?
- iv. Define syntax error.
- v. Write the legal character for an identifier.
- vi. Rewrite the expression  $x += 2$ , without using compound assignment operator.
- vii. Predict the output of the following code segment:
- viii. Find error in the following code segment:

```
int x = 13;
int y = 3;
Print of ("%d %d %d", x/y, y, x, x%y);
```

```
Integer x, y, sum;
z = x + y * UI;
Print f ("sum = %d", z);
```

(OR) VISUAL BASIC

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- ii. Distinguish between compiler & interpreter.
- iii. Why the logical error is the most difficult to trace?
- iv. Define syntax error.
- v. Write the legal character for an identifier.
- vi. Define mouse down event.
- vii. What is mouse move event?
- viii. What is key up event?
- ix. How form is unloaded?

C LANGUAGE

4. Write short answers of any six parts from the following:

- i. Determine output of following code segment:
- ii. Determine output of following code segment:
- iii. Define clrscr() function?
- iv. Write following statement in C language:
- v. What happens if break is missed in case block?
- Temperature is between 25 and 35.
- vi. What is the use of scanf() function?
- vii. Differentiate between while and do while loop.
- viii. Convert following code into for loop.
- ix. What is nested loop?

```
Int n, a, b;
n = 400;
a = n % 100;
b = n / 10;
Print f ("Result = %d %d", a, b);
```

```
Int X = 1, Y = 3, z = 3;
If ((X == Y) // (Y == z)) (z == 2)
Print f ("Yes");
else
print f ("No");
```

(OR) VISUAL BASIC

4. Write short answers of any six parts from the following:

- i. What are Active X control
- ii. Define command button control.
- iii. Define procedure level variable.
- iv. What is the purpose of "caption" property of control?
- v. Which function loads a picture at run time?
- v. What is meant by event procedure?
- vii. Define "locked" property of textbox.
- vii. Differentiate between image and picture control.
- ix. Define combo box control.

SECTION-II

Note Attempt any one question from the following: (M.S ACCESS)

- 5. Explain features of database management system.
- 6. What is ER diagram? Give an example of ER diagram

SECTION-III

Note Attempt any two questions either from "C-Language" or "Visual Basic".

"C-Language"

- 7. Define "if-else-if" statement. Explain its working with syntax, flowchart and example.
- 8. Write a program in C-language which prints the sum of the following series by using loop:

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{n}$$

"Visual Basic"

- 7. Define "if - then - else - structure"? Explain its working with syntax, flowchart and example.
- 8. Write a program in VB which prints the sum of the following series by using loop:

$$1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{n}$$

- 9. Briefly describe the process of writing a function in C-language
- 9. Briefly describe the process of writing a function in VB

Roll No. \_\_\_\_\_ To be filled in by the candidate

(For all sessions)

Paper Code 8 8 3 7

**Computer Science (Objective Type)**

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Marks:15

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**MS-ACCESS**

- 1.1. Which form of dependency is removed in 2NF?
 

(A) Partial	(B) Associative	(C) Transitive	(D) Functional
-------------	-----------------	----------------	----------------
2. To find a four-character name that starts with H, the criteria is specified as:
 

(A) H*4	(B) H?4	(C) H????	(D) H####
---------	---------	-----------	-----------
3. The processed data is called:
 

(A) Object	(B) Information	(C) Knowledge	(D) Data
------------	-----------------	---------------	----------
4. Which of the following can be a primary key?
 

(A) Last Name	(B) Salary	(C) Customer ID	(D) Region
---------------	------------	-----------------	------------
5. Which strategy is used to store data at a single site?
 

(A) Partitioned	(B) Replicated	(C) Hybrid	(D) Centralized
-----------------	----------------	------------	-----------------
6. The output of a query is in the form of a:
 

(A) Form	(B) Report	(C) Field	(D) Table
----------	------------	-----------	-----------

**C-Language**

7. Which key word is used for loop?
 

(A) while	(B) nested	(C) loop	(D) if
-----------	------------	----------	--------
8. A Function can return \_\_\_ value.
 

(A) 1	(B) 2	(C) 3	(D) 4
-------	-------	-------	-------
9. Which memory location contains the address of another memory location?
 

(A) Function	(B) program	(C) variable	(D) pointer
--------------	-------------	--------------	-------------
10. Which is low level language?
 

(A) C	(B) Machine	(C) Visual Basic	(D) Fortran
-------	-------------	------------------	-------------
11. A set of rules for writing program is high level language is called:
 

(A) Syntax	(B) Bug	(C) Delimiter	(D) Loader
------------	---------	---------------	------------
12. Variables are created in:
 

(A) RAM	(B) ROM	(C) Hard disk	(D) Cache
---------	---------	---------------	-----------
13. Which logical operator is used in C?
 

(A) /	(B) +	(C) &&	(D) *
-------	-------	--------	-------
14. Which is output function in C program?
 

(A) Print f ( )	(B) Scan f ( )	(C) gets ( )	(D) getch ( )
-----------------	----------------	--------------	---------------
15. How many control structures in C Languages?
 

(A) 1	(B) 2	(C) 3	(D) 4
-------	-------	-------	-------

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. Define Foreign key.  | ii. Who is the user or end user?       |
| iii. List two activities involved in Data Analysis.             | iv. Define an attribute. Give example. |
| v. Define Homonym.  | vi. What is redundant information?     |
| vii. Write two benefits of using Access.                        | viii. What is meant by RDBMS?          |
| ix. Write one difference between check boxes and radio buttons. |  |

**(C-Language)**

3. Write short answers of any six parts from the following.

2 x 6 =12

- |  |  |
|--|--|
| i. How would you define preprocessor directives?   | iv. What can you say about Expression?             |
| ii. What is purpose of main function?  |  |
| iii. How would you differentiate between variable declaration and variable initialization? | vi. Find the errors in the following code segment. |
| v. Trace the errors in the following code segment:   |  |

```
#include<stdio.h>
```

```
Void main () {
```

```
int a,b,c;
```

```
a=10; b=20; c=30;
```

```
print ("a=%d",a);
```

```
}
```

```
#include<stdio.>
```

```
Void main () {
```

```
int a=10
```

```
print f ("A=",a);
```

```
}
```

- |   |   |
|---|---|
| vii. How can you describe briefly the format specifier? | viii. Determine the output of the following code segment. |
|---|---|

```
m=m+10;
```

```
n=5*m;
```

```
Print f ("m=%d\t\t n=%d\n",m,n);
```

- |  |
|--|
| ix. How would you demonstrate increment operator and assignment operator in C Statement? |
|--|

4. Write short answers of any six parts from the following.

2 x 6 =12

- |   |                                     |
|---|-------------------------------------|
| i. What is meant by conditional operator?                     | ii. Define compound condition.      |
| iii. Write down output of following code.                     | iv. Write output of following code. |
| int a=10;   | int a=1;                            |
| int b=20;   | int k=1;                            |
| if (a>b)  | for (;a<=5;a++)                     |
| printf ("%d is greater", a);                                  | printf ("%d\n",a+k);                |
| else  |                                     |
| printf ("%d is greater",b);                                   |                                     |
| v. Define function body.                                      | vi. Write two types of functions.   |
| vii. Define function arguments.                               | viii. What is meant by EOF marker?  |
| ix. Convert the following for loop statement into while loop. |                                     |

```
int a;
```

```
int k=1;
```

```
for (a=1;a<=5; a++)
```

```
printf ("%d\n",a+k);
```

**Section -II (MS-ACCESS)**

8x1=8

Note: Attempt only one question from the following.

5. What is DBMS? Discuss different advantages of Database Management Systems?

08

6. What is query ? Write advantages of queries.

08

**Section -III (C-language)**

8x2=16

Note: Attempt any two question from the following.

7. Describe the characteristics of high level programming languages.

08

8. Write a program that inputs a character and displays whether it is vowel or not using switch statement.

08

9. What is do-while loop? write down its syntax, draw flow chart and explain its working with example.

08



Roll No. \_\_\_\_\_ To be filled in by the candidate

(For all sessions)

Paper Code	8	8	3	1
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# Computer Science (Objective Type)

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## MS-ACCESS

- Arithmetic manipulation of data is known as:
  - Summarizing
  - Classifying
  - Sorting
  - Calculations
- An attribute is also known as:
  - Field
  - Table
  - Row
  - Relation
- In ERD Model, the relationship between two entities is represented by a:
  - rectangular box
  - oval symbol
  - diamond symbol
  - line
- Every relation must have a:
  - candidate key
  - primary key
  - secondary key
  - alternate key
- Which of the following object of database is used to retrieve data from database?
  - Queries
  - Forms
  - Reports
  - Tables
- A referential integrity constraint is a rule that maintains consistency among the:
  - columns of two tables
  - two columns of same table
  - rows of two table
  - attribute of two tables

## C-Language

- Every statement in a C program terminates with:
  - Colon
  - Semicolon
  - Delimiters
  - comma
- Preprocessor directives are commands for:
  - Microprocessor
  - Language processor
  - Loader
  - C preprocessor
- Which of the following operators has lowest precedence:
  - =
  - !
  - ==
  - +
- The logical not operator, denoted by!, is a:
  - Unary operator
  - Ternary operator
  - Binary operator
  - Bitwise operator
- The escape sequence for Tab is:
  - \f
  - \n
  - \r
  - \t
- The format specifier %f is used for:
  - Character
  - Integer
  - Double
  - Float
- A compound statement refers to a group of statements enclosed in:
  - ()
  - { }
  - []
  - ""
- A loop inside the body of another loop is:
  - For loop
  - while loop
  - nested loop
  - infinite loop
- Function prototypes for built-in functions are specified in:
  - source files
  - header files
  - object files
  - image files

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**(For all sessions)**

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**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.
- viii. Find errors in the following code

segment:

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

```
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.
- vi. Determine the output of the following code segment.

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

```
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.
6. Define functional dependency. How do partial dependencies affect a relation?

**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.
8. What is control structure? Briefly describe basic control structures of C program.
9. Write a program that prints odd numbers between (1 to 100) using for loop.