



# The Times Secondary School

Dillibazar, Kathmandu

First Terminal Examination – 2080

Grade: - XII

Set A

Full Marks:-50

Stream: Science

Pass Marks:-20

Subject: - Computer Science

Time : 2 hrs

*Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate the full marks.*

## Group – 'A'

*Rewrite the correct options of each question in your answer sheet. [9 x 1 = 9]*

- Which of the following statements are used in DML commands?
  - Select, drop, update
  - Select, insert, delete
  - Select, drop, delete
  - Select, modify, drop
- With SQL, how do you select all the records from a table named "Student" where the value of column "address" is "KTM"?
  - Select \* from Student where address="Kathmandu";
  - Select name from Student where location="KTM";
  - Select \* from Student where address="KTM";
  - Select All from Students where address="KTM";
- Which of the following is a programming language to make our webpages dynamic?
  - HTML
  - CSS
  - JavaScript
  - ActionScript
- What is the correct syntax for referring an external JavaScript?
  - <script src="myscript.js"> </script>
  - <script href="myscript.js"> </script>
  - <js href="myscript.js"> </js>
  - <js src="myscript.js"> </js>
- What is the output for this program?

```
#include<stdio.h>
void main()
{
    int a = 5;
    int *x = &a;
    printf("%d",x);
    getch()
}
```

  - 5
  - Memory address of x
  - Memory address of a
  - null
- A variable which holds memory address of another variable is \_\_\_\_\_.
  - Function
  - Array
  - Pointer
  - Structure
- Which of the following is features must be supported by any programming language to become a pure object-oriented programming language?
  - Encapsulation
  - Inheritance
  - Polymorphism
  - All

- Which feature of OOP is illustrated the code reusability?
  - Polymorphism
  - Inheritance
  - Encapsulation
  - Abstraction
- Which wireless networking standard is commonly used for high-speed, short-range communication between devices like smartphones and laptops?
  - Bluetooth
  - Wi-Fi
  - LTE
  - None

## Group – 'B' (Short answer questions)

**Attempt all question.**

**[5 x 5 = 25]**

- What is a Database Management System? Write any four advantages of DBMS. [1+4]
  - Define Keywords and Variable. Write a C program to input length and breadth of a rectangle and find the area. [1+1+3]
- Or*
- Define recursive function. WAP in C to calculate factorial of a given number using recursion. [1+4]*
- Explain Relational Database Management System with example. [5]
  - Define JavaScript. Differentiate between client and server-side scripting language. [1+4]

*Or*

*Write any two uses of JavaScript. Write a JavaScript program to display multiplication table of given number. [2+3]*

- Explain about Inheritance and Polymorphism available in OOP concept.[2.5+2.5]

## Group-‘C’ (Long answer questions)

**Attempt all question.**

**[2x8=16]**

- What is a computer network? Explain different types of communication modes with example of each. Differentiate between Peer-to-Peer and Client-Server network architecture. [1+3+4]

*Or*

*Differentiate between Array and Structure. WAP to calculate sum of two numbers using user defined function. [4+4]*

- Write any two uses of pointer. Write a C program that store records of 10 Books having fields as id, title, price and display all the records having price more than 1000 in appropriate format using structure. [2+6]

**The End**



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### Group – 'A'

*Rewrite the correct options of each question in your answer sheet. [9 x 1 = 9]*

1. With SQL, how do you select all the records from a table named "Persons" where the value of the column "FirstName" ends with an "a"?
  - a) Select \* from Persons where FirstName="a"
  - b) Select \* from Persons where FirstName Like "a%";
  - c) Select \* from Persons where FirstName LIKE "%a";
  - d) Select \* from Persons where FirstName="%a%"
2. The key that identifies each record uniquely, is called \_\_\_\_\_.
  - a) Unique Key
  - b) Primary Key
  - c) Key record
  - d) Field name
3. Which of the following is the correct syntax to display "Times Int'l College" in an alert box using JavaScript?
  - a) alert-box("Times Int'l College");
  - b) confirm("Times Int'l College ");
  - c) msgbox("Times Int'l College");
  - d) alert("Times Int'l College ");
4. Which of the following keywords are used declare a variable in JavaScript?
  - a) int or var
  - b) float or let
  - c) var or let
  - d) char or var
5. What is the total memory allocated by Union?
  - a) Sum of all
  - b) Highest among all
  - c) Lowest among all
  - d) None
6. Which of the following is correct declaration of pointer variable?
  - a) int &p;
  - b) int \*p;
  - c) int p\*;
  - d) int p&;
7. What is the main principle of Object-Oriented programming (OOP)?
  - a) Emphasis on global variables
  - b) Emphasis on functions
  - c) Emphasis on data
  - d) Emphasis on linear execution
8. Which property of OOP means same function behave differently?
  - a) Inheritance
  - b) Encapsulation
  - c) Polymorphism
  - d) Abstraction
9. In which type of network architecture each node has equal authority?
  - a) Client-Sever
  - b) Peer-to-Peer
  - c) Decentralized
  - d) Centralized

### Group – 'B'

(Short answer questions)

Attempt all question.

[5x5=25]

10. Differentiate between centralized and distributed database system. [5]
11. Define identifier and operator. Write a C program to input principal, time and rate and then find the simple interest. [1+1+3]

OR

*Define recursive function. WAP in C to display the Fibonacci series up to 10<sup>th</sup> term using recursion.[1+4]*

13. What is a computer network? Explain the different types of networks on the basis size. [1+4]
14. Define JavaScript. Differentiate between client and server-side scripting language. [1+4]

Or

*Write a JavaScript program to find the greatest among three numbers using function. [5]*

15. Differentiate between Procedure-Oriented Programming (POP) and Object-Oriented Programming (OOP). [5]

### Group – 'C'

(Long answer questions)

Attempt all question.

[2x8=16]

16. What is data normalization? Explain 1NF, 2NF and 3NF with example. [2+6]

Or

*Differentiate between Structure and Union. WAP in C that ask user to input the radius and then calculate the area of a circle using function. [4+4]*

17. Discuss about pointer with advantages. Write a C program to store information of 10 Employee (empid, name, salary) and display it using Structure in proper order. [3+5]

**The End**