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Subject - PCPF Roll No - 04

Assignment Sest 2.:-

1) List the ways in which scripting languages differ from conventional "system languages".

A scripting language is basically a language where instructions are written for runtime environment. They do not require compilation and are interpreted. There are certain characters which differ scripting languages from other programming languages:-

i) Economy of expression :- To support both rapid development and interactive use, of scripting languages tend to require minimum of 'boilerplate'. They attempt to avoid the extensive declarations and top-level structures common to ~~pro~~ conventional programming languages.

```
class Hello {
    public static void main (String [] args) {
        System.out.println("Hello, World!");
    }
}
```

This is a program to print hello world in java

and in python it is simply print("Hello, World!")

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Lack of declarations and simple scoping rules -
Most scripting languages dispense with declarations, and provide simple rules to govern the scope of names. Eg. in Perl everything is global by default and we need to specify local declaration. Another languages everything is local by default (Eg PHP).

Flexible dynamic typing :-
Most of the scripting languages are dynamically typed. In some languages a variable will be checked immediately prior to use. In others a variable will be used interpreted differently in different contexts.

```
$a = "4"
print $a . 3 . "\n"; # '.' is concatenation
print $a + 3 . "\n"; # '+' is addition
```

will print
4 3
7

Easy access to system facility :- Most programming languages provide way to ask the underlying operating system to run another program. But in scripting languages, these requests are much more fundamental and have much more direct support.

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High level data Types:-

High level data types such as sets, bags, dictionaries, lists and tuples are common in the standard library packages of conventional languages. Built in scripting languages high-level data types are build into the syntax and semantics of the languages itself.

2) Differentiate between client side and server side scripting languages.

Client Side Scripting	Server Side Scripting
1) Code is visible to user	1) Source code is not visible to user because it's output is a HTML page.
2) Since code is visible to user it is less secure	2) More secure compared to client side scripting
3) Depends on the browser and it's version	3) Depends on the technology used at server side and does not depend on the user.
4) Runs in a web-browser on user's computer	4) Runs on remote web-server

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5) This makes the application more interactive and improves response times.	5) It has the ability to highly customize response requirements, access rights based on user.
6) Eg. HTML, CSS and javascript are used.	6) PHP, Python, java are used.
7) These handel the user interface and the user experience.	7) These handle the backend computation and databases.