Scripting Languages Objective

1. What will be the output of the following Perl code? [ ]

A) 5 B) 15 C) 10 **D) 20**

2. What are 'listary operators' in Perl? [ ]

A) Operator on collections B) Operators on integers
C) Operators on the list of operators D) All of these

3. Which of the following commands are used for error handling in TCL? [ ]

A) **error,catch** B)fault,pick C) error,throw D) catch,wait

4. Which of these is not a basic data type in Perl? [ ]

A) **Integer** B) Arrays C) Scalars D) None of these

5. Which of the following special variable represents current package name? [ ]

A) **PACKAGE_** B) Package C) PACKAGE D) None of the above.

6.**'**X' operator on string used to? [ ]

A) Add x character to the string B) **Repeat the given string multiple times**
C) Add two strings D) none of these

7. Which method in Perl is used to delete a directory? [ ]

A) deldir B**) rmdi r** C) cldir D) chdir

8. Which command is used to execute a Tcl script? [ ]

A) run B) execute C) **source** D) start

9. The syntax for creating a widget in TCL is given below. [ ]

A) **type variableName arguments options** B) type variableName options arguments
C) variableName type options arguments D) optons arguments type variableName

10. A group of statements that perform a specific task is known as [ ]

A) Function B) Subroutine C) Method D**) All of these**

11. Which of the following function opens a file in writing mode without truncating the file? [ ]

A) open(DATA, "<file.txt"); B) open(DATA, ">file.txt");

C) **open(DATA, "+<file.txt");** D) None of the above.

12. What is the purpose of the “package” command in Tcl? [ ]

A) To install new packages on the system

B) **To load and unload Tcl packages**

C) To create new Tcl package

D) To list available Tcl packages

13. Which of the following variable context doesn't care what the return value is? [ ]

A) **Scalar** B) List C) Boolean D) Void

14**.** Which of the following is a valid Tcl command to create a new variable called “my_var” with a value of 10? [ ]

A) **set my_var** 10 B) create my_var 10 C) new my_var 10 D) variable my_var 10

15. How will you get the count of parameters passed to a perl subroutine? [ ]

A) **Using args** B) using scalar (@_) C) Both of the above. D) None of the above.

16. What is the purpose of the “if” statement in Tcl? [ ]

A) To define a new variable

B) To loop through a list of values

C**) To execute a block of code conditionally**

D) To define a new procedure

17. which of the following is the correct way to use a “while” loop in Tcl to iterate through a list of values? [ ]

A) while i in {1 2 3} { … } B) while i < 10 { … }

C) while {[set i 0] < 10} { … } **D) while {i < 10} { … }**

18. Which of the following is correct about Array in Perl? [ ]

A) An array is a variable that stores an ordered list of scalar values.

B) Array variables are preceded by an “at” (@) sign.

C) To refer to a single element of an array, you will use the dollar sign ($) with the variable name followed by the index of the element in square brackets.

D) **All of the above**

19**.** The creator of Perl programming language is ___. [ ]

A) James Gosling B) Brendan Eich C) **Larry Wall** D) Bjarne Stroustrup

20. Which of the following is the correct way to use the "puts" command in Tcl to print the string "hello world" to the console? [ ]

A) puts hello world B) **puts "hello world"** C) puts {hello world} D) puts ["hello world"]

21. Which of the following is the correct way to use the "catch" command in Tcl to handle an error that might occur while executing a command? [ ]

A) **catch { some_command } result_var**

B) catch some_command result_var

C) catch { some_command } { error_msg } result_var

D) catch some_command { error_msg } result_var

22. TCL tk was developed by _____ [ ]

A) **John Ousterhout** B) linguist Larry Wall

C) Yukihiro "Matz" Matsumoto D) Guido van Rossum

23. Which of the following is the correct way to define a variable "x" in Tcl and set its value to 10?

A) set x = 10 B) x = 10 **C) set x 10** D) x 10 [ ]

24. Valid loops in Perl are ___. [ ]

A) For B) foreach C) do while **D) All of these**

25. Hashes are unordered sets of key/value pairs that you access using the keys as subscripts. They are

. Preceded by _____ sign [ ]

A) & **B) %** C) $ D) @

26. What is Tcl/Tk? [ ]

A) A text editor for Linux systems B**) A scripting language and GUI toolkit**

C) A database management system D) A web development framework

27. What is a directory in Perl? [ ]

A) **A place to store values in the form of a list** B) An array to string

C) A data structure D) none of these

28. Which of the following method prepends list to the front of the array, and returns the number of elements in the new array? [ ]

A) push @ARRAY, LIST B) pop @ARRAY

C) shift@ARRAY **D) unshift @ARRAY,LIST**

29. The print method in Perl returns ___. [ ]

A) **boolean value** B) string C) char D) None of these

30. What is a module in Perl? [ ]

A) Collection of related subroutines and variables B) Array of functions

C) Collection of values of same type D) none of these

FILL IN THE BLANKS –

1. **Pl** is the file extension for the Perl program.
2. **$string1, $string2** command used to compares the two strings in TCL.
3. 'Our' keyword is used to **create an alias to package.**
4. “qw” stands for **Quote words.**
5. **My object_name = new class_name()** is the correct syntax for creating a new object in Perl.
6. **BASH** command takes patterns and strings to match variables.
7. **Evaluation (EVAL)** is a built in command in TCL to evaluate a script.
8. 'x' operator on string used to **Repeat the given string multiple times.**
9. TCL stands for **Transaction Control Language.**
10. TC tk used for development of **GUI's** applications.
11. The chdir() function used to **Change directory.**
12. Arguments in Perl are passed as Arrays**.**
13. CPAN stands for **Comprehensive Perl Archive Network.**
14. **Dict set dictname key value** keyword used to create dictionaries in TCL.
15. Is it possible to pass file handles to subroutines in Perl? **YES.**
16. $string=~s/a/b/g; Here “g” stands for **Global.**
17. List context of the returned value from a subroutine is extracted using **@.**
18. The print method in Perl returns **boolean value.**
19. **Proc** Command used to create procedures in TCL.
20. STDIN in Perl stands for STandarD **INput.**

SCRIPTING LANGUAGES EXTERNAL SUBJECTIVE IMPORTANT QUESTIONS

UNIT – I

1. Discuss in detailed about Ruby on Rails.
2. Explain in detail about the concept of SOAP?
3. Define Cookies? Explain the working of cookies.
4. Explain about Packet Management with Ruby Gems.
5. Explain about Ruby TK with sample Tk application.
6. Discuss widgets? Explain its types in detail.
7. What is CGI and explain the working of CGI in detail?

UNIT – II

1. Describe the Ruby Objects in 'C'?
2. List and Explain the Jukebox Extension with neat diagram.
3. Explain Memory allocation in Ruby Programming.
4. List out the differences between Embedding Ruby to other Programming languages.
5. What is Ruby interpreter? Explain in detail.
6. Describe the Ruby Type System.

UNIT – III

1. Write short notes on PERL.
2. Classify the Origin of Scripting and discuss on Scripting Today.
3. List the differences between Programming and Scripting languages.
4. List and explain the characteristics and Uses of Scripting languages.
5. Write short notes on Universe of Scripting Languages.

6. Define Script and Program. Write a sample program for both.
7. List and explain the hashes and its operators in Perl?
8. Write about list with an example in Perl?
9. Write short notes Scalar Expressions in Perl.
10. Explain in details about subroutines in Perl?
11. Explain the concept of strings in Perl.
12. Write short notes on Arrays with an example in Perl?
13. Classify the patterns and regular expressions in Perl.
14. Differences between Hashes and Arrays in Perl.

UNIT – IV

1. What are File handles? Discuss the functions to deal with file handles?
2. Discuss about finer points of looping?
3. Explain about the Perl's approach to provide security?
4. Define package and create own package with suitable program?
5. What is the purpose of eval operator? Give example?
6. Create Internet aware applications in Perl?
7. Explain how pack and unpack functions can be use to simulate c structs?
8. Define package and create own package with suitable program?

UNIT – V

1. Explain pattern matching techniques with examples?
2. What is TCL? Explain structure of TCL?
3. What is visual toolkits and write about the widgets in TCL?
4. What is an event driven Programs?
5. Explain briefly about the "bind" command and events in TCL Tk?
6. Describe making Nuts and Bolts Internet programming in TCL?
7. What are the Data structures in TCL? Explain with an example?
8. Write a short note on namespaces? Explain importing and exporting namespaces in TCL?

1 a) Explain how pack and unpack functions can be use to simulate c structs?

b) What are the Data structures in TCL? Explain with an example?

2 a) Write short notes on Arrays with an example in perl?

b) What is the purpose of eval operator? give example?

3 a) Write a short note on namespaces? Explain importing and exporting namespaces in TCL?

b) Classify the patterns and regular expressions in perl

4 a) Define package and create own package with suitable program?

b) What is an event driven Programs?

5 a) Write about list with an example in perl?

b) Explain about the perl's approach to provide security?

6 a) What is visual toolkits and write about the widgets in TCL?

b) List and explain the hashes and its operators in perl?

7 a) Discuss about finer points of looping?

b) What is TCL? Explain structure of TCL?

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b)What are File handles? Discuss the functions to deal with file handles?

9 a)Explain pattern matching techniques with examples?

b)Explain in details about subroutines in perl?

10 a) Define package and create own package with suitable program?

b) Describe making Nuts and Bolts Internet programming in TCL?

11 a) Explain the concept of strings in perl

b)Create Internet aware applications in perl?

12 a) Explain briefly about the "bind" command and events in TCL tk?

b) Differences between Hashes and Arrays in Perl

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SL LAB Question Bank

1.
a) Write a TCL script to find the factorial of a number.
b) Write a Perl program to implement the following list of manipulating functions
(i) shift (ii) push
c) Write a Perl script to validate IP address and email address.
d) Explain the concept of strings in Perl.

2.
a) Write a Perl script to print the file in reverse order using command line arguments.
b) Write a Perl script to substitute a word, with another word in a string.
c) Write a TCL script for Sorting a list using a comparison function.
d) Write short notes Scalar Expressions in Perl.

3.
a) Write a Perl script to find the largest number among three numbers.
b) Write a TCL script to comparing the file modified times.
c) Write a TCL script that multiplies the numbers from 1 to 10.
d) Classify the patterns and regular expressions in Perl.

4.
a) Write a TCL script to (i)create a list (ii)Traverse the list.
b) Write a Perl script to substitute a word, with another word in a string.
c) Write a Perl program to implement the following list of manipulating functions
(i) Unshift (ii) pop
d) Define package and create own package with suitable program?

5.
a) Write a Perl script to print the file in reverse order using command line arguments.
b) Write a TCL script to find the factorial of a number.
c) Write a TCL script that multiplies the numbers from 1 to 10.
d) List and explain the hashes and its operators in Perl?

6.

a) Write a TCL script to comparing the file modified times.
b) Write a TCL script to (i) Concatenate the list (ii)append elements to the list.
c) Write a Perl script to print the multiplication tables from 1-10 using subroutines.
d) What is the purpose of eval operator? Give example?

7.

a) Write a Perl script to find the largest number among three numbers.
b) Write a Perl script to validate IP address and email address.
c) Write a TCL script that multiplies the numbers from 1 to 10.
d) Define package and create own package with suitable program?

8.

a) Write a TCL script for Sorting a list using a comparison function.
b) Write a Perl program to implement the following list of manipulating functions
(i) Unshift (ii) pop
c) Write a Perl script to print the file in reverse order using command line arguments.
d) What are File handles? Discuss the functions to deal with file handles?

9.

a) Write a Perl script to substitute a word, with another word in a string.
b) Write a Perl script to print the multiplication tables from 1-10 using subroutines.
c) Write a TCL script to find the factorial of a number.
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a) Write a Perl script to validate IP address and email address.
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(i) Unshift (ii) pop
d) Create Internet aware applications in Perl?

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c) Write a TCL script to (i)create a list (ii)Traverse the list.
d) Differences between Hashes and Arrays in Perl.

12.

a) Write a Perl script to print the multiplication tables from 1-10 using subroutines.
b) Write a TCL script to (i) Concatenate the list (ii)append elements to the list.
c) Write a Perl program to implement the following list of manipulating functions
(i) shift (ii) push
d) Define package and create own package with suitable program?

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a) Write a TCL script to find the factorial of a number.
b) Write a Perl script to validate IP address and email address.
c) Write a TCL script for Sorting a list using a comparison function.
d) Write short notes on Arrays with an example in Perl?

14.

a) Write a Perl script to print the file in reverse order using command line arguments.
b) Write a Perl program to implement the following list of manipulating functions
(i) Unshift (ii) pop
c) Write a TCL script that multiplies the numbers from 1 to 10.
d) Explain about the Perl's approach to provide security?

15.

a) Write a TCL script to comparing the file modified times.
b) Write a TCL script to (i)create a list (ii)Traverse the list.
c) Write a Perl script to print the multiplication tables from 1-10 using subroutines.
d) Discuss about finer points of looping?

1. **Write a Ruby program to create a new string which is n copies of a given string where n is a non-negative integer.**

```
def multiple_string(str, n)
   return str*n
end
puts "Enter a string"
str=gets.chomp
puts "Enter number of copies"
cp=gets.chomp.to_i
case cp
when 1
print multiple_string(str, 1),"\n"
when 2
print multiple_string(str, 2),"\n"
when 3
print multiple_string(str, 3),"\n"
when 4
print multiple_string(str, 4),"\n"
when 5
print multiple_string(str, 5),"\n"
else
print "Default"
end
```

Output:

```
C:\Ruby30-x64>ruby lab1.rb
Enter a string
abc
Enter number of copies.
5
Abcabcabcabcabc
```

2. **Write a Ruby program which accept the radius of a circle from the user and compute the perimeter and area.**

```
print "Input the radius of the circle: "
radius = gets.chomp.to_f
perimeter = 2 * 3.141592653 * radius
area = 3.141592653  * radius * radius
puts "The Perimeter of the Circle is #{perimeter}."
puts "The Area of the Circle is #{area}."
```

```
Output:
C:\Ruby30-x64>ruby lab2.rb
Input the radius of the circle: 3
The Perimeter of the Circle is 18.849555918.
The Area of the Circle is 28.274333877.
```

3. **Write a Ruby program which accept the user's first and last name and print them in reverse order with a space between them.**

a.

```
puts "Enter ur first name"
fname=gets.chomp
puts "Enter ur Last name"
lname=gets.chomp
puts "Hello #{lname} #{fname}"
```

Output:

C:\Ruby30-x64>ruby lab3.rb
Enter ur first name
Reena
Enter ur Last name
Shrma
Hello Sharma Reena

b.

```
puts "Enter your Name"
name=gets.chomp
puts name.split.reverse.join(" ")
```

Output:

C:\Ruby30-x64>ruby lab3-new.rb
Enter your Name
Reena Sharma
Sharma Reena

4. write a ruby script to accept a filename from the user and print the extension of that.

```
puts "Enter file name"
file = gets.chomp
# file name
file_name = File.basename(file)
puts "File name: "+file_name
# basename
base_name = File.basename(file,".*")
puts "Base name: "+base_name
# file extention
file_extension = File.extname(file)
puts "Extention: "+file_extension
# path name
path_name= File.dirname(file)
puts "Path name: "+path_name
```

Output:

C:\Ruby30-x64>ruby lab4.rb
Enter file name
lab3.rb
File name: lab3.rb
Base name: lab3
Extention: .rb
Path name: .

C:\Ruby30-x64>ruby lab4.rb
Enter file name
c:\tcl\a.tcl
File name: a.tcl
Base name: a
Extention: .tcl
Path name: c:\tcl

5. Write a Ruby program to find the greatest of three numbers.

```
puts "Enter 1st no."
x=gets.chomp.to_i
puts "Enter 2nd no."
y=gets.chomp.to_i
puts "Enter 3rd no."
z=gets.chomp.to_i
if x >= y and x >= z
    puts "x = #{x} is greatest."
elsif y >= z and y >= x
    puts "y = #{y} is greatest."
else
    puts "z = #{z} is greatest."
end
```

Output:

```
C:\Ruby30-x64>ruby lab5.rb
Enter 1st no.
345
Enter 2nd no.
786
Enter 3rd no.
987
z = 987 is greatest.
```

6. Write a Ruby program to print odd numbers from 10 to 1.

```
puts "Odd numbers between 10 to 1: "
9.step(1,-2) do|x|
     puts "#{x}"
 end
```

Output:

```
C:\Ruby30-x64>ruby lab6.rb
Odd numbers between 10 to 1:
9
7
5
3
1
```

7. Write a Ruby program to check two integers and return true if one of them is 20 otherwise return their sum.

```
def check20(x,y)
  if x==20 || y==20
    return 1
  else
    return x+y
  end
end

puts "Enter first no."
x=gets.chomp.to_i
puts "Enter second no."
y=gets.chomp.to_i
print check20(x, y),"\n"
```

Output:

```
C:\Ruby30-x64>ruby lab7.rb
Enter first no.
20
Enter second no.
50
1

C:\Ruby30-x64>ruby lab7.rb
Enter first no.
78
Enter second no.
```

```
20
1

C:\Ruby30-x64>ruby lab7.rb
Enter first no.
70
Enter second no.
50
120
```

8. **Write a Ruby program to check two temperatures and return true if one is less than 0 and the other is greater than 100.**

```
def temp_check(temp1, temp2)
   return ( temp1 < 0 && temp2 > 100 ) || ( temp1 > 100 && temp2 < 0 );
end
puts "enter temperature 1"
temp1=gets.chomp.to_i
puts "enter temperature 2"
temp2=gets.chomp.to_i
print temp_check(temp1,temp2),"\n"
```

Output:

```
C:\Ruby30-x64>ruby lab8.rb
enter temperature 1
-2
enter temperature 2
200
true

C:\Ruby30-x64>ruby lab8.rb
enter temperature 1
400
enter temperature 2
-6
true
```

```
C:\Ruby30-x64>ruby lab8.rb
enter temperature 1
90
enter temperature 2
-1
False
```

9. Write a Ruby program to print the elements of a given array.

```
array1 = ["Ruby",2.3,35,78.6,Time.now]
for array_element in array1
        puts array_element
end
```

Output

```
C:\Ruby30-x64>ruby lab9.rb
Ruby
2.3
35
78.6
2021-06-07 15:49:08 +0530
```