SLOT: A1 + TA1

REG.NO.:

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SCHOOL OF ELECTRONICS ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
WINTER SEMESTER 2025-2026

Programme Name & Branch : B.Tech VLSI Design
Course Code and Course Name : BEVD205L , **Scripting Languages and Verification**
Faculty Name(s) : Dr. J. Saikia, Dr. A. Tripathi
Class Number(s) : VL2025260500895, VL2025260500897
Date of Examination : 27/01/26
Exam Duration : 90 minutes **Maximum Marks:** 50

General instruction(s):

- Answer All Questions
- M - Max mark; CO – Course Outcome; BL – Blooms Taxonomy Level (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)
- Course Outcomes:
  CO1: Handle files, directories and manage processes using PERL scripts.
  CO2: Handle files, directories and manage processes using TCL scripts.

Q. No	Question	M	CO	BL

1.	A) Fix the syntax for the following code:
	
	use strict
	use warnings
	my %score = ("Alice" = 10, "Bob" = 20)
	foreach my $name (keys %score) {
	print $name ":" %score{name}
	}
		5	1	3

	B) Write a Perl script that: - Reads a list of integers from standard input. - Defines a subroutine count_digits($num) that returns the number of digits in the number - Prints each number and its digit count. **Example** **Input:** 45 100 7 **Output:** 45 2 100 2 7 1	5		
2.	A user-defined Perl module TextUtils.pm provides the function: **to_upper($filename)** which prints the contents of the given file in uppercase. Write a **Perl script** that: - Uses the module TextUtils - Accepts one or more filenames from the command line - For each file: - Prints the filename as a header	10	1	3

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	- Calls to_upper($filename) to display the transformed contents You may assume that: - The module exists and is accessible. - All input files exist and are readable. - The subroutine to_upper is available and behaves correctly. **Example** **Command:** perl show_upper.pl a.txt b.txt **Output:** a.txt HELLO WORLD b.txt PERL SCRIPTING			
3.	Explain how control flow is implemented in Perl scripts. In your answer, discuss the role of the following Perl constructs and how they influence the execution of a script: a) Conditional statements (if,elsif) b) Looping constructs (while, for, for each) c) Loop control statements (last, next) d) Special variables used in loops and subroutines ($_ , @_) e) Effect of control flow on correctness and accuracy.	10	1	2
4.	Write a TCL script that performs the following: - Creates a list *tests* with test names *test1*,*test7* and *test3*. - Adds *test5* to the list using lappend. - Inserts *test2* at index 1. - Searches if *test10* is a part of the list. - Sorts the list and prints the sorted list along with its length. - Uses an associative array ***results*** to store PASS for each test in the list. - Print result of test5.	10	2	3
5.	***set a 5*** ***puts "Value is $a"*** a) With reference to the above commands, explain the basic structure of a TCL script. Describe how parsing and execution are performed.	5	2	2
	b) Explain variable substitution and quoting with suitable examples. Also discuss how expressions are evaluated using the *expr* command.	5		

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KEY

1

a)

```
use strict;
use warnings;
my %score = ("Alice" => 10, "Bob" => 20);
foreach my $name (keys %score) {
        print "$name : $score{$name}";
}
```

Issues fixed:

1) Missing ; (4 cases)
2) Assign Hash Correctly (2 cases)
3) $score{$name} (1 case)
4) Fix print (1 case)

b)

```
use strict;
use warnings;

sub count_digits {
        my ($num) = @_;
        return length($num);
        #or use a divide by 10 approach
}

while (<STDIN>) {
        chomp;
        my $digits = count_digits($_);
        print "$_ $digits\n";
}
```

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2)
```
use strict;
use warnings;

use TextUtils;

foreach my $file (@ARGV) {
        print "$file\n";
        to_upper($file);
}
```

4)
```
# Create a list with initial test names
set tests {test1 test7 test3}

# Add test5 to the list
lappend tests test5

# Insert test2 at index 1
set tests [linsert $tests 1 test2]

# Search for test10 in the list
if {[lsearch $tests test10] != -1} {
        puts "test10 found"
} else {
        puts "test10 not found"
}

# Sort the list
set tests [lsort $tests]

# Print sorted list and its length
puts "Sorted list: $tests"
puts "Length: [llength $tests]"

# Create an associative array to store results
foreach t $tests {
 set results($t) PASS
}

# Print result of test5
puts "Result of test5: $results(test5)"
```