JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -2 EXAMINATION- 2024
B.Tech-IV Semester (BT/BI)

COURSE CODE (CREDITS): 18B11BI414 (3)

COURSE NAME: Programming Languages for Bioinformatics

COURSE INSTRUCTORS: Dr. Shikha Mittal

MAX. MARKS: 25

MAX. TIME: 1 Hour 30 Minutes

Note: (a)All questions are compulsory.

(b)Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

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Q1. Prompt the user for a long string, followed by a shorter one. Use both index and rindex to locate the short string inside the longer one and compare the results. (4 marks) [CO-1 & CO-3]

Q2. Write the output of the following perl codes- (4 marks) [CO-1 & CO-3]

(a) What is the output of the following Perl code?
```
my $x = 5;
my $y = ++$x * 2;
```

(b) What is the output of the following Perl code?
```
my $str = "hello";
print uc($str);
```

Q3. In Perl, how do you add or remove elements from an array? (4 marks) [CO-3]

Q4. Explain the following - (3 marks) [CO-2 & CO-3]

a) What does the '$_' symbol mean?
b) What does the q{ } and qq{ } operator do?
c) How to find the length of an array in Perl?

Q5. What are the possible ways to sort an array? (3 marks) [CO-3]

Q6. How many types of loops are there in Perl? Explain and differentiate between different types of loops in Perl with example. (4 marks) [CO-2]

Q7. Create an array that holds the numbers from 1 to 10. Create a slice of that list with a different name that holds all the odd numbers, and another slice of that sublist that holds all the primes. Write a program that displays the last slice, one element at a time. Display the size of all three lists. (3 marks) [CO-1, CO-2 & CO-3]