

2054
B.Sc. (Hons) Bio-Informatics
Sixth Semester
BIN-6001: Introduction to Perl Programming

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

- Q1. a) What is Perl and what is it commonly used for?
b) Explain the difference between "my", "our", and "local" variable declarations.
c) What is the purpose of the "strict" pragma?
d) Explain the difference between "foreach" and "for" loops.
e) How exceptions are handled in Perl?
f) Explain the steps to read input from the command line?
g) What is the difference between the "chomp" and "chop" functions in Perl's input operations?
h) List the steps to extract form data from the query string in a Perl CGI script. 12

UNIT - I

- Q2. a) Explain in detail the differences in syntax, data structures and paradigms between Perl, Java, PHP, C, and Python and how these differences impact their respective use cases and applications
b) Explain the significance of the special variable \$ _ in Perl's input/output operations. Describe the difference between the "print" and "say" functions in Perl. 12
- Q3. a) Explain the difference between arrays and lists in Perl. What are references and how are they used in list processing?
b) Write a program to remove elements from an array in Perl. 12
- Q4. Explain with example, the use of the following functions uc(), substr(), grep(), sleep(), exists() and delete() in Perl. 12

UNIT - II

- Q5. a) Discuss the advantages and disadvantages of using regular expressions for pattern matching in Perl.
b) Write a program to extract email addresses from the given text. 12
- Q6. a) Describe the significance of "filehandles" in file handling operations. Also explain the process to handle errors that may occur during file operations?
b) Write a program to the following operations:
(i) open a file for reading and print its contents
(ii) open a file for writing and write data to it
(iii) to append data to an existing file: 12
- Q7. a) Explain the TCP/IP protocol stack and its layers.
b) What is the purpose of the CGI module in Perl and how is it used to process form data? Also, explain the significance of the param () function in Perl CGI programming. 12