2053

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. I which is compulsory and selecting two questions from each Unit.*

x-x-x

1. Attempt the following:-
   a) What is PERL? How it is useful in bioinformatics?
   b) Explain splice() function and give its syntax?
   c) Give the output of following code:
      @foods = qw(pizza steak chicken burgers);
      print "Before: @foods\n";
      @foods = sort(@foods);
      print "After: @foods\n";
   d) Explain different string manipulation operators in PERL with examples.
   e) Explain for loop with example.
   f) Explain rename function. Write a code to rename a file "file1.txt" to "file2.txt" by assuming file is available in /usr/test directory.
   g) What are Quantifiers in PERL? Discuss its types and usages.
   h) What do you mean by split() function? Give its syntax.
   i) What is a CGI Script?

   (8x1.5)

UNIT-I

2. a) Discuss three basic data types in PERL with example.
   b) What are variables? How variables are created. Explain Hash variables.

   (06+06)

3. a) Differentiate between while and do-while statements of PERL.
   b) Differentiate between if and unless statements of PERL.
   c) Explain grep() function and its syntax. Write suitable code in PERL to explain its use.
   d) What are Associative Arrays? Explain different Associative Arrays operators.

   (03+03+03+03)

4. a) What is subroutine? Explain how hashes are passed in subroutine in PERL. Support your answer with PERL program.
   b) Explain push, pop, shift and unshift functions with example.

   (06+06)

UNIT-II

5. a) Write Perl statements using regular expressions for the following:
      i) Matches any of these words in the string: cat, rat, mat.
      ii) Count the number of times the word "the" occurs in the given text.
      iii) Substitute lower case with upper case.
   b) Explain join(), chomp() & substr() functions in PERL. Write suitable code in PERL to explain its use.

   (06+06)

6. a) What are file test operators? Explain different operators which are used to test file.
   b) Write PERL programs to read a file and print the contents of the file in the reverse order.

   (06+06)

7. a) Write a short note on TCP/IP protocol.
   b) Create a CGI form that inputs user name and outputs Hello followed by username.
   c) Explain GET and POST Methods.

   (03+05+04)

x-x-x