Exam.Code:0441
Sub. Code: 25966

2125

M.Sc. (Bio-Informatics) Third Semester

MBIN-8013: Programming Language in Bio-Informatics – II

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting atleast one question from each Unit.

x-x-x

I. Attempt the following:

a) Which Perl function is used to read input from the command line?

b) Differentiate between Chomp and Chop function in Perl.

c) Explain any two string operators in Perl.

d) Name any two differences between XML and HTML.

e) XML Prolog

f) Which Perl module is commonly used for parsing XML documents?

(6x2)

UNIT - I

II. (a) Discuss the use of control statements in Perl with examples

(b) Discuss array functions available in PERL with example. (2x6)

III. (a) Explain the concept of internal and external subroutines in Perl.

(b)Write a PERL script to compute frequency of nucleotides from DNA Sequence. (2x6)

UNIT – II

IV. (a) Create a Well-Formed XML instance document and write a DTD to validate it.

(b)What are XML attributes? How are they different from elements?

(c)What is the root element in an XML document? (6+3+3)

V. (a) Describe the concept of XML Namespaces and their importance.

(b)What is DTD in XML? Give its types and significance. (2x6)

UNIT – III

VI. (a) Explain major features of XML related to data sharing and data transport.

Contd.....P/2

(b) Write an XML document representing a protein entry with tags for the following information and write a CSS script to display this XML document (use assumptions if any required):

protein_id, protein_name, length, amino_acid_sequence (2x6)

VII. (a) Write a Perl code snippet that reads an XML file and extracts values from specific tags.

(b)Write note on

i) XML Parsers

ii) XML Pre-Defined Entities? (2x6)

x-x-x