Exam.Code:0441
Sub. Code: 25966

2124

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) What are scalar data types in perl?

b) Define Subroutines

c) Explain input from command line in perl.

d) Empty XML Element

e) Well-Formed XML Document

f) XML Prolog (6x2)

UNIT - I

II. (a) What are control statements? Explain with examples.

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

III. (a) Write a PERL script to compute frequency of nucleotides from DNA Sequence.

(b) Explain file handling in PERL programming with examples. (2x6)

UNIT – II

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

(b) Write the naming rules of Elements and Attributes in XML.

(c) Compare the features of HTML with XML (6+3+3)

V. (a) Explain Names paces in XML using suitable example.

(b) Define Document type declaration and mention its components. (2x6)

P.T.O.

UNIT – III

VI. (a)Write about major features of XML.

(b) Create an XML document to represent the following information and write a CSS script to display this XML document (use assumptions if any required).

Accession: AAA1234, Type: mRNA, Organism: Homo sapiens

Accession: BBB1234, Type: DNA, Organism: Pan troglodytes (2x6)

VII. (a)Write a script to demonstrate the use of Perl to process XML documents.

(b)Write note on

i) Elements and Attributes in XML

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

x-x-x