

**M. Sc. Bioinformatics Sem.-II (C.B.C.S.) (2013 Course) / Advanced
Diploma in Bioinformatics Sem.-II (C.B.C.S.) (2013 Course) :**

WINTER - 2018

SUBJECT: PERL AND BIOPERL PROGRAMMING

Day : Tuesday
Date : 30/10/2018

W-2018-1259

Time : 02.00 PM TO 05.00 PM
Max. Marks: 60

N. B.:

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining attempt **ANY TWO** questions from each sections.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to the both sections should be written in **SEPARATE** answer books.

SECTION-I

- Q.1** Answer the following (10)
- 1) What is perl?
 - 2) Enlist the datatypes of perl
 - 3) What is string?
 - 4) Define : Interpolation
 - 5) Enlist file test operators.
- Q.2** Answer the following (**ANY TWO**) (10)
- 1) Explain with examples Operators in regular expression?
 - 2) What will be the result when following operator is evaluated?
 $14+6*3-10/2$
 - 3) What does command 'use strict' and 'use warnings' do and why should we use it?
- Q.3** Differentiate between (**ANY TWO**) (10)
- 1) C programming and perl programming
 - 2) While and do while loop
 - 3) Arrays and scalars.
- Q.4** Write a subroutine to print following output using loop (10)
(**BIOINFORMATICS**, each word in next line).

OR

w.a.p. to copy the content of one file into another file.

SECTION-II

- Q.5** Answer the following (10)
- 1) What is CGI?
 - 2) Use of bioperl module?
 - 3) What are access modifiers?
 - 4) What is POD?
 - 5) Define class.
- Q.6** Answer the following (**ANY TWO**) (10)
- 1) What is regular expression? Explain regular expression variables with example.
 - 2) What is hash? Explain its functions with example.
 - 3) Write a program to print values and keys from hash.
- Q.7** Explain object oriented programming concept in detail. (10)
- OR
- What are perl modules? Explain its use with one example.
- Q.8** Write a short note on (**ANY TWO**) (10)
- 1) Packages in perl
 - 2) Autoloads
 - 3) Complex data structures.

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