

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086  
(For candidates admitted from the academic year 2015 – 2016)

SUBJECT CODE: 15BI/PC/PL34  
M. Sc. DEGREE EXAMINATION, NOVEMBER 2016  
BIOINFORMATICS  
THIRD SEMESTER

COURSE : CORE  
PAPER : PERL  
TIME : 1½ HOURS

MAX. MARKS: 50

SECTION – A

ANSWER ALL THE QUESTIONS: (30x1=30)  
CHOOSE THE CORRECT ANSWER:

1. Which of the following data types are preceded by an "@" sign (@) in Perl?  
A. Scalar    B. Array    C. Hashes    D. All of the above.
2. Which of the following method sorts the LIST and returns the sorted array value?  
A. splice [ SUBROUTINE ] LIST    B. split [ SUBROUTINE ] LIST  
C. join [ SUBROUTINE ] LIST    D. sort [ SUBROUTINE ] LIST
3. Which of the following statement terminates the loop statement and transfers execution to the start of the loop?  
A. next    B. last    C. continue    D. redo
4. Which of the following operator is used when the current value of a variable must be visible to called subroutines?  
A. my    B. local    C. state    D. None of the above.
5. What will be the size of the @fields array  
my \$record = 'a:b:c';  
my @fields = split(':', \$record, -1);  
A. 0    B. 1    C. 3    D. 5
6. The following operator will collapse all duplicate spaces into single spaces in the string \$str  
\$str =~ s/\s+//;  
A. true    B. false
7. Arrays are denoted by \_\_\_\_\_ in Perl.  
A. @    B. %    C. \$    D. #
8. The “+=” is which type of operator?  
A. comparison operators    B. Arithmetic operators  
C. Increment/ decrement operators    D. Assignment operators
9. \_\_\_\_\_ is used to identify the Subroutine  
A. @    B. \$    C. &    D. #
10. Select data type in Perl which stores associative arrays  
A. Resource    B. Scalar    C. Hash    D. Array
11. Command line arguments in Perl are stored in \_\_\_\_\_  
A. Scalar    B. Resource    C. Array    D. Hash

12. In Perl, the following argument is \_\_\_\_\_ used frequently  
 A. -w (argument shows warning)      B. -d (use for debug)  
 C. -c (which compile only not run)      D. All the above
13. The following command is used to save the standard output in a file, as well as display it on the terminals  
 A. dog      B. cat      C. tee      D. qwl
14. The option of ls command used to view file inode number  
 A. -l      B. -o      C. -a      D. -i
15. How do you parse a sequence file?  
 A. Bio::SeqIO      B. JAVA:: O      C. Bio ::Seqlc      D. none of the above
16. How do to motif searches with BioPerl?  
 A. Bio::Tools::SeqPattern      B. TFBS package      C. Both a and b correct      D. None
17. How do I merge a set of sequences along with their features and annotations?  
 A. \$merged\_seq = Bio:: (@seqs)      B. \$merged\_seq = Bio::SeqUtils->cat(@seqs)  
 C. Bio::SeqUtils->cat      D. None
18. Using which command you find resource limits to the session?  
 A. rlimit      B. ulimit      C. setrlimit      D. getrlimit
19. Why do you use Perl?  
 A. powerful free interpreter      B. portable and flexible  
 C. easy to learn      D. all the above
20. BioPerl is a collection of \_\_\_\_\_ modules that facilitate the development of Perl scripts for bioinformatics applications.  
 A. PHP      B. Perl      C. Python      D. JAVA
21. BioPerl has provided the base for a bioinformatic tool  
 A. BioParser      B. TFBS      C. SynBrowse      D. All the above
22. What will be the value of \$1 after execution of the following code  

```
my $txt = 'I am learning Perl';
$txt =~ /(\w+)$/;
```

 A. Perl      B. I      C. I am learning Perl      D. empty string
23. What will be the value of \$val?  

```
my $str = 'aa bb cccc';
my $val = () = $str =~ /\w+/g;
```

 A. undef      B. aa      C. cccc      D. 3
24. Which of the following is the correct way of sorting an array of integers in ascending order?  
 A. sort @a      B. sort {\$1 <=> \$2} @a  
 C. sort {\$\_[0] <=> \$\_[1]} @a      D. sort {\$a <=> \$b} @a

25. What is Mod\_perl?  
 A. language      B. program      C. module of Apache      D. both a and b
26. What gets printed?  

```
my $a = (0, 1, 2);
print "$a\n";
```

 A. 0      B. 1      C. 2      D. 0 1 2
27. What will be the value of \$str after execution of the following code?  

```
my $str = '112133';
$str =~ s/(.)\1/$1/g;
```

 A. 112133      B. 1233      C. 1213      D. 12133
28. What will be the value of \$val?  

```
my $str = 'aa bb cccc';
my $val = () = $str =~ /\w+/g;
```

 A. aa      B. cccc      C. 0      D. 3
29. How many key-value pairs will the hash contain?  

```
my %hash = (
  [1, 2] => 1,
  [1, 2] => 2
);
```

 A. 2      B. 3      C. 4      D. the code will fail
30. A function that requires a list argument can take an array but a function that requires an array argument cannot take a list.  
 True or False

## SECTION – B

### ANSWER ANY TWO

(2x10=20)

31. Describe in detail about the file handling procedure in Perl.
32. Explain in details about PERL 5 and its types of variables, statement and declarations.
33. Write the uses of BIOPERL on DNA database.
34. Describe the program features on check boxes, Radio buttons, scrolling list and popup menu on HTML

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