M. Sc. DEGREE EXAMINATION, NOVEMBER 2024
BIOINFORMATICS
FIRST SEMESTER

COURSE   **: CORE**
PAPER   **: PROGRAMMING IN C++ AND PERL**   **MAX. MARKS: 50**
SUBJECT CODE **: 23BI/PC/CP14**
TIME   **: 1 ½ HOURS**

Q. No.	SECTION A (10 x 1=10) ALL QUESTIONS TO BE ANSWERED	CO	KL
1	Which of the following is the correct syntax to print the message in C++ language? a) cout <<"Hello world!"; b) Cout << Hello world! ; c) Out <<"Hello world!; d) None of the above	CO1	K1
2	Which of the following is the address operator? a) @ b) # c) & d) %	CO1	K1
3	Which of the following features must be supported by any programming language to become a pure object-oriented programming language? a) Encapsulation b) Inheritance c) Polymorphism d) All of the these	CO1	K1
4	C++ is a ___ type of language. a) High-level Language b) Low-level language c) Middle-level language d) None of the above	CO1	K1
5	Which of the following is the correct syntax for declaring the array? a) init array [] b) int array [5]; c) Array[5]; d) None of the above	CO1	K1
6	What is the file extension for the Perl program? a) .pl .b) perl c) .prl d) .pc	CO1	K2
7	What is the correct syntax for creating a new object in Perl? a) var object_name = new class_name() b) new object_name = class_name() c) my object_name = new class_name() d) None of these	CO1	K2
8	What is multiple inheritance in Perl? a) When more than two different inheritance, takes place in a single program. b) When a class inherits more than two classes c) When two classes inherit properties from a single class d) None of these	CO1	K2

9	What is the correct syntax for creating a new object in Perl? a) var object_name = new class_name() b) new object_name = class_name() c) my object_name = new class_name() d) object_name = class_name()	CO1	K2
10	Destructors in Perl are _____. a) Used for cleanup of reference of objects b) Called at the start of the program c) Not a program d) All of these	CO1	K2
Q. No.	**SECTION B** **(10 x 2= 20)** **ANSWER ALL THE QUESTIONS**	**CO**	**KL**
11	What are the characteristics of C++?	CO2	K3
12	Classify the Identifiers used in C++.	CO2	K3
13	Write the syntax to open and close the C++ files.	CO2	K3
14	Identify the method for string compare in C++.	CO2	K3
15	Why is it important to close files properly after reading or writing in Perl?	CO2	K3
16	Identify how files are renamed in Perl.	CO2	K3
17	How are variables declared in Perl?	CO3	K4
18	What are subroutines?	CO3	K4
19	Analyze and write the uses of BioPerl in modules	CO3	K4
20	Explicate the Module of BioPerl:Seq	CO3	K4
Q. No.	**SECTION C** **(4 x 5= 20)** **ANSWER FOUR QUESTIONS WITH INTERNAL CHOICE**	**CO**	**KL**
21	a) Explain the control structures in C++ with a suitable example. **(OR)** b) Elucidate the string manipulation function for string comparison and swapping with a suitable example.	CO4	K5
22	a) Explain the purpose of Inheritance in C++ with a suitable example. **(OR)** b) Interpret the purpose of back references in regular expressions and how they are denoted in Perl.	CO4	K5
23	a) Elaborate the benefits of creating regular expressions in Perl. **(OR)** b) Discuss the use of Sysopen() in file handling.	CO5	K6
24	a) Explain how annotation module is used in Bioperl with a suitable example. **(OR)** b) Elaborate the uses of Bioperl in DNA analysis.	CO5	K6

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