(6 pages) **Reg. No. :** .....

Code No. : 20305 E **Sub. Code : AEPH 51**

B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2022.

Fifth Semester

Physics

Major Elective – PROGRAMMING IN C++

(For those who joined in July 2020 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. In object oriented programming the program is divided into

   (a) class (b) object

   (c) function (d) none of these

2. The wrapping up of data and functions into a single unit is called _____.

   (a) inheritance (b) encapsulation

   (c) data hiding (d) polymorphism

3. Objects communicate with one another by using _____.

   (a) message passing

   (b) operator overloading

   (c) Inheritance

   (d) both (a) and (b)

4. The _____ principle helps the programmer to build secure programs.

   (a) operator overloading

   (b) encapsulation

   (c) data hiding

   (d) polymorphism

5. _____ provides interface between the object's data and program.

   (a) object (b) functions

   (c) class (d) polymorphism

6. In C++, 14%4= _____.

   (a) 1 (b) 2

   (c) 3 (d) 4

7. Array indexing always starts with the ———— number.

(a) 0 (b) 1

(c) 2 (d) 10

8. When a data type must contain decimal numbers, assign the ———— type.

(a) int. (b) char.

(c) double. (d) long int.

9. Write the range of value of the data type 'char' ————.

(a) 0 to 128 (b) 0 to 255

(c) -255 to 255 (d) -128 to 127

10. C++ begins its execution with————.

(a) header file (b) main

(c) class (d) declaration

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) State and explain tokens in C++?

Or

(b) Explain the purpose of identifiers in C++ with example.

12. (a) Describe the initialization of one dimensional arrays in C++.

Or

(b) Point out the purpose of function overloading.

13. (a) How will you use arrays within a class? Give example.

Or

(b) Explain the declaration of member functions with example.

14. (a) Elaborate the defining operator overloading in C++.

Or

(b) Describe the single inheritance with an example program.

15. (a) Bring out the formatted console I/O operations in C++.

Or

(b) Mention the classes for file stream operations.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe the various control structures in C++ with suitable examples.

Or

(b) State the data types supported by C++? Explain with examples.

17. (a) Discuss the two dimensional arrays with simple example.

Or

(b) Write a C++ program to find the factorial of a number using function.

18. (a) Write the general form of a class declaration and how to create objects for a class.

Or

(b) Analysis the implementation of parameterized constructors.

19. (a) Compare the multiple inheritance and multilevel inheritance with example.

Or

(b) Examine the rules for overloading operators.

20. (a) Formulate the opening files using constructors.

Or

(b) Evaluate the working with single and multiple files.

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