End Sem No. **1** Exam Year **2021**

Subject/ Code BCA/C1

F.M. =60 **P.M.**=30 (Including Mid Sem) **Time**=3Hrs.

General Instructions:

i. **Group A** carries very short answer type **compulsory** questions.
ii. **Answer 3 out of 5** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के पाँच में से किन्हीं तीन विषयनिष्ठ/वर्णनात्मक प्रश्नों के उत्तर दें।)
iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

1. Write the answer in one sentence or in one word [10X1 =10]

(i)Define array.

(ii) What is the type of error in the code

```
#include <iostream.h>
void main()
{ int x=300,y=300,z;z=x*y;cout<<z;?.
```

(iii) Define identifier.

(iv) In which header file islower function is defined?

(v) What is preprocessor directive?

(vi) Define constructor.

(vii) Define virtual function.

(viii) When public and protected data member are inherited in public mode then in which section they may viewed in derive class?

(ix) Which features of OOP is also known as reusability feature?.

(x) What are the file pointers in C++ available to process random access file?

2. Define a class **Salary** with data member EmpNo, Basic_Salary and DA .With member function Read_data() , Calculate_DA() and display().Read_data() read EmpNo and Basic_Salary. DA calculated using Calculate_DA() as per the rule : if Basic >100000 DA is 30% of basic otherwise 40%of basic. Calculate_DA() is declared in private section of class. [5]

Group-B

3. Write syntax of different type of iterative statements. Write a program to calculate the sum of the series $1+x+\frac{x^2}{2!}+\frac{x^3}{3!}+\frac{x^4}{4!}+$…….n terms [15]
4. What do you mean by function in C++? Explain different type of function definition (based on arguments and return data type) with example. Also state that how the functions are called from other function. [15]
5. What is the difference between procedural program and object oriented program . Explain features of object oriented program. [15]
6. What are the different type of inheritance? Define a class **Student** with attribute roll and name and have two function 1.store()and 2.display().
   Derive a class **Result** having attribute mark1, mark2 and total. It has two function 1. Input_marks()and 2.calculate_total(). Write a main program using the class. [15]
7. Define function overloading and operator overloading? Explain function overloading with an example. [15]
