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Roll No.

TBC-203/TBS-203/TBI-203

B. C. A./B. Sc. (IT)/B. Sc. (CS)

(SECOND SEMESTER)

MID SEMESTER

EXAMINATION, April, 2023

OBJECT ORIENTED PROGRAMMING

USING C++

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each question carries 10 marks.

1. (a) Differentiate between Outside the class definition and inside the class definition of member function with proper example. (CO1)

P. T. O.

OR

(b) What is the need of Default Argument in function ? WAP in C++ to explain the concept of default argument. (CO1)

2. (a) Explain Inline function with proper example and note down the situations where Inline function may not work. (CO1)

OR

(b) What is OOPs ? Differentiate between OOP's and POP by using suitable example ? (CO1)

3. (a) Define constructor and destructor in C++. Write a programme to show the usage of default constructor in C++. (CO2)

OR

(b) Write a C++ programme to design basic arithmetic operations (+, *, / -). You are required to use parametrized constructor for providing the inputs to class variables. (CO2)

4. (a) Write a short note by using suitable example : (CO2)
static
this

OR

- (b) Write a C++ programme to design basic arithmetic operations (+, *, / -). You are required to use parametrized constructor for providing the inputs to class variables. (CO2)
5. (a) What is friend function. Explain its merits and demerits. Also, differentiate friend class and friend method by using an example. (CO2)

OR

- (b) Design a C++ program to implement the below mentioned class with respective methods : (CO2)

Class Calculate

```
{  
public :  
int var 1;  
int var 2;
```

```
Calculate ( )
```

```
{  
}
```

```
void show (Calculate c11)
```

```
{  
  
};
```

```
in main ( )
```

```
{  
}
```

- (i) Write a code for constructor. [It is use to initialize the class data members.]
- (ii) Write a code for show method () (where class calculate is passed) to display the value of var 1 and var 2 by using class object (passed within class).
- (iii) Write a code in main () method, from where we are passing the value to show () method.