Reg. No.:

Name:



Mid-Term Examinations, April 2021

| Programme | : | B.Tech – Computer Science and Engineering | Semester | : | Winter 2020-2021 |
|-----------|---|-------------------------------------------|----------------|---|------------------|
| Course | : | Object Oriented Programming with C++ | Code | : | CSE2001 |
| Faculty | : | Dr. R Thilagavathy | Slot/Class No. | : | B21+B22+B23/0291 |
| Time | : | 1½ hours | Max. Marks | : | 50 |

Answer all the Questions

Q. No. Question Description Marks

1 Explain the mechanism for exception handling? When do we need multiple catch blocks for a single try block? Give an example?

10

A company consists of departments. Departments are located in one or more offices. One of the office acts as a headquarter. Each department has a manager who is recruited from the set of employees. Your task is to model the system for the company.

Task:

Draw a class diagram which consists of all the classes in your system their attributes and operations, relationships between the classes, multiplicity specifications, and other model elements that you find appropriate.

- Write a C++ program to display number of objects created using static member.
- 4 Explain the importance of friend function with suitable example.
- Define a structure that represents Fruit with properties fruit name, fruit type, fruit colour. Write a program that accepts data of four fruits and displays the results.
- Write the member function to overload the < operator. Use the standard < operator to compare the weight data member of the ZooAnimal object with other Z00Animal Object. Finally display the name of the animal which has highest weight.

```
class ZooAnimal
{
  private:
    char *name;
    int cageNumber;
    int weight;
  public:
    ...
    bool operator < (int);
    ...
};</pre>
```

10

5

5

10

10