Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Midterm Exam Examination, Fall 2020 @ DIU Blended Learning Center

Course Code: CSE221 (Day), Course Title: Object Oriented Programming

Level: 2 Term: 1   Section: O-5

Instructor: MD. Assaduzzaman   Modality: Open Book Exam

Date: 03/11/2020   Time: 09:00am-01:00pm

Time: Four hours (4:00) to support online open/case study based assessment   Marks: 25

Answer all of the following questions. Figures in the right-hand margin indicate full marks.

1. What are the types of inheritance you know? Suppose, your friend name is x , his father name is y, and his grandfather name is Z. What types of inheritance it refers ? Write a simple code and show their relationship using your own name [as class name], your father name[as class name], and grandfather name[as class name], . You also need to create an object to complete the code.   3

2. When we will use static keyword? Give a practical example. Write down the advantages of static keyword.   2

3. How can you make the below class to exhibit fully encapsulation? You need to describe where to need change/correction step by step with your own word after completing code.   5

```
public class Rectangle {
          int length;
          int width;
          int area;



private  void setLength(int length) {
this.length = length;

}

private  void setWidth(int width) {
this.width = width;

}

private  void  getLength() {
```
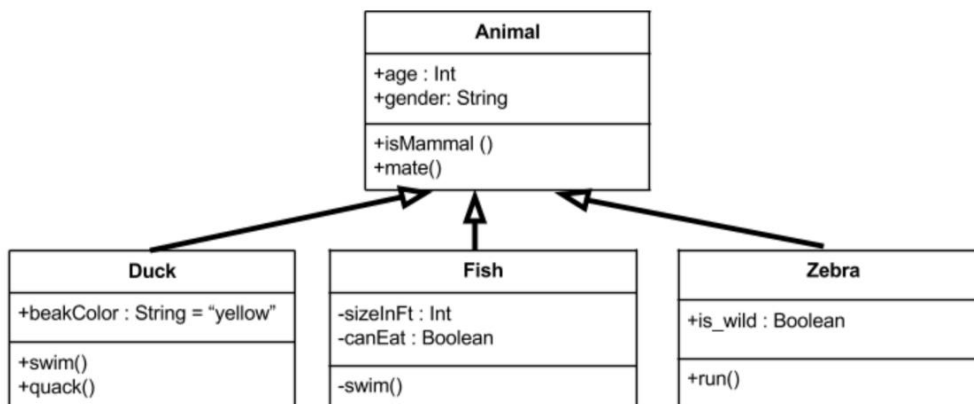
```
return length;
}}
```

4. If you want to access parent class method or variable in child class which keyword you will use? How you will use it? Write down the code.

Suppose, there is a method "sum()" and variable "name" in parent class. We need to access it in child class.   2

5. Write down the code from the following UML diagram and then explain each topic like access modifier, relationship, method and variable from the following UML. You need to assign variable and implement method with proper body in the code.   5

5. Suppose, Your friend name is "Asik". His age is 24 years old. He is tall and healthy. His eyes are brown. He can sing a song. He can also dance and cook.

Find out the identity , attributes and behaviors.   2

6. What do you mean by abstraction? Write down a practical example. Write a simple interface where there will be two method.   2

7. Suppose, You want to develope a software . Do you think UML helps you for better software designing.? How? Write with your own word.   3

8. Write down all topic you have learned in this course?   1