Assessment subm
X

(https://swayam.gov.in)

(https://swayam.gov.in/nc_details/NPTEL)

Register for Certification exam (https://examform.nptel.ac.in/2022_01/exam_form/dashboard)

Thank you for taking the Week 3 : Assignment 3.

Week 3 : Assignment 3

Your last recorded submission was on 2022-02-16, 23:12 IST Due date: 2022-02-16, 23:59 IST.

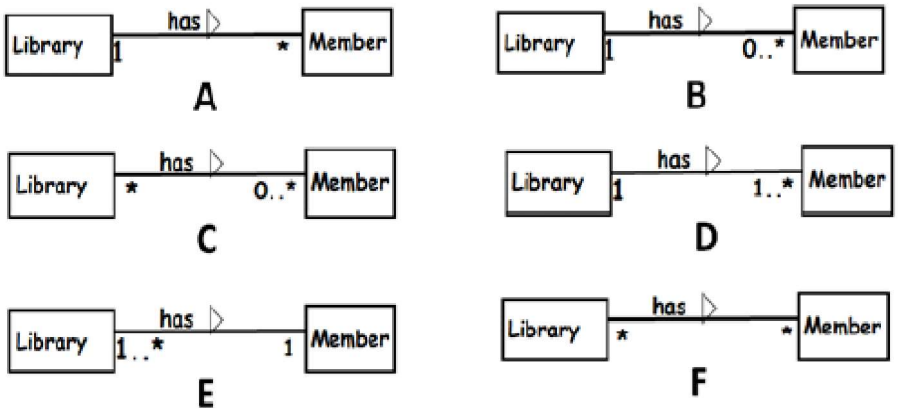
1) ***1 point***

Assessment submitted
X

Consider the following Java code.

```
class Library{
    private ArrayList <Member> members = new ArrayList<Member>();
    public Library() {
        Member defaultMember = new Member();
        members.add(defaultMember);
    }
}
```

Which one of the following class diagrams correctly model the given Java code?



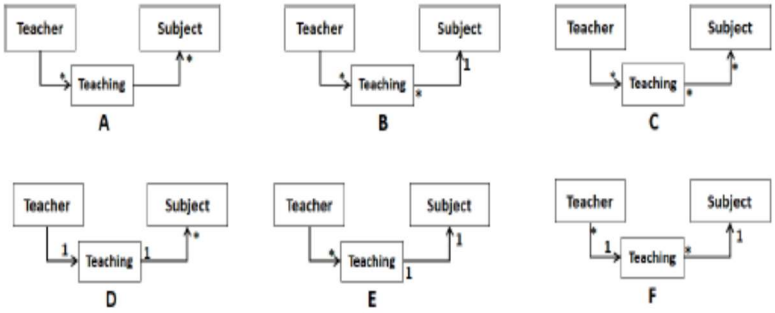
a. A
b. B
c. C
d. D
e. E
f. F

- (●) a.
- ( ) b.
- ( ) c.
- ( ) d.
- ( ) e.
- ( ) f.

2) ***1 point***

Assessment submitted.
X

Consider that a teacher teaches a single subject every semester. The subject may differ or may not differ over the different semesters. The teacher receives feedback from the students, a numeric overall teaching quality and a few sentences of textual feedback. Which one of the following class diagrams most accurately models this?



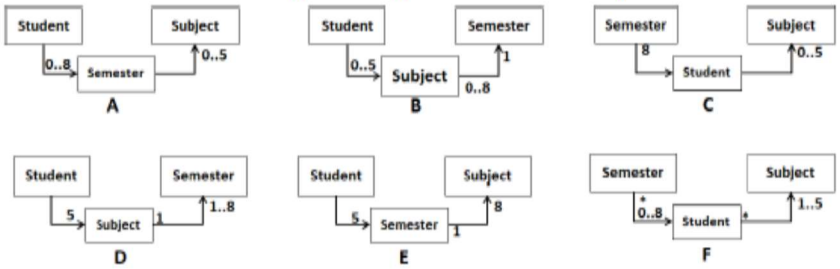
a. A
b. B
c. C
d. D
e. E
f. F

- ○ a.
- ◉ b.
- ○ c.
- ○ d.
- ○ e.
- ○ f.

3) ***1 point***

Assessment submitted.
X

Consider that a student studies upto 8 semesters in an Institute. The student registers upto 5 courses each semester. At the end of each semester the student receives a letter grade for each of the course credited for that semester. Which one of the following class diagrams most accurately models this?

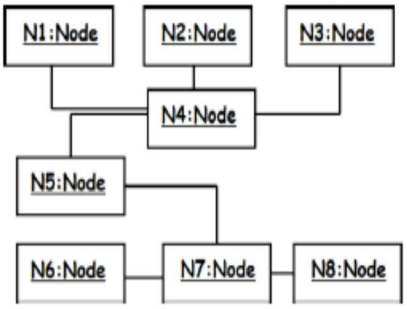


a. A
b. B
c. C
d. D
e. E
f. F

- (●) a.
- ( ) b.
- ( ) c.
- ( ) d.
- ( ) e.
- ( ) f.

4) ***1 point***

Consider the following object diagram representing the way nodes of a computer network with 8 nodes (N1 to N8) are connected. Which one of the following is true of the association relation present in the corresponding class diagram?



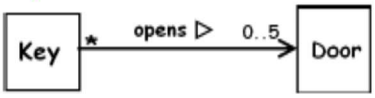
a. Unary association
b. Binary association
c. Ternary association
d. Quaternary association
e. Association class

Assessment submitted.
X

- ○ a.
- ◉ b.
- ○ c.
- ○ d.
- ○ e.

5) ***1 point***

Consider the following class diagram. In a Java implementation of the class diagram, which one of the following data structures is appropriate for storing the references to the linked door objects at a key object.



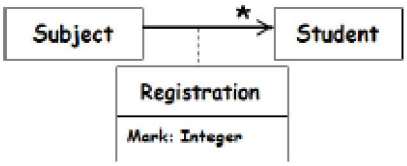
a. HashTable
b. Array
c. Set
d. Map
e. HashSet

- ○ a.
- ◉ b.
- ○ c.
- ○ d.
- ○ e.

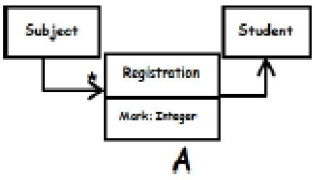
6) ***1 point***

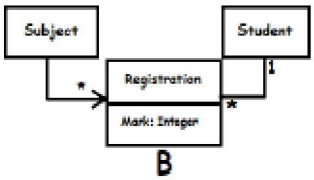
Assessment submitted.
X

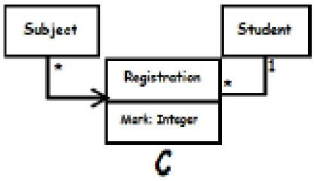
Consider the following class diagram.

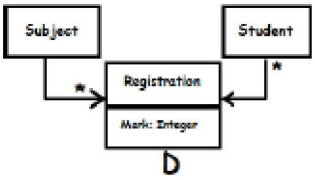


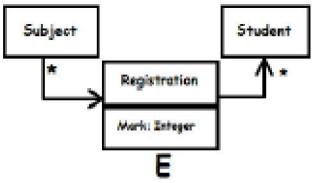
This class diagram is equivalent to which one of the following class diagrams.

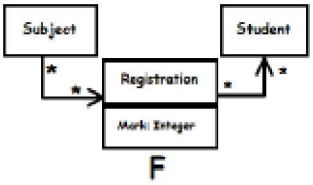












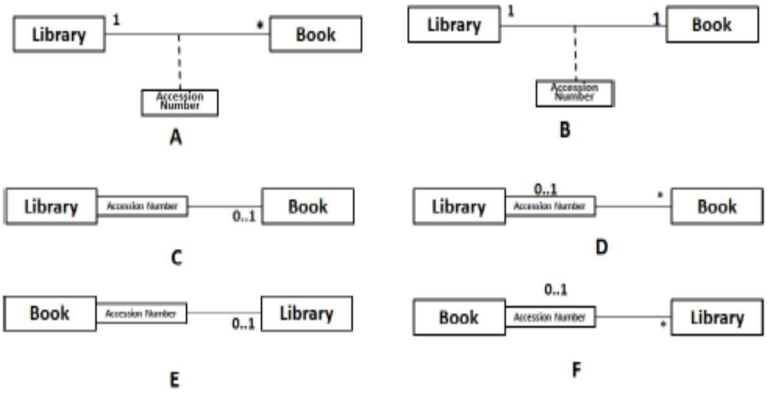
a. A
b. B
c. C
d. D
e. E
f. F

- (●) a.
- ( ) b.
- ( ) c.
- ( ) d.
- ( ) e.
- ( ) f.

7) ***1 point***

Assessment submitted.
X

Consider that a Library has many books. Each book is uniquely identified by its Accession number. Which one of the following class diagrams most accurately models it?



a. A
b. B
c. C
d. D
e. E
f. F

- ○ a.
- ○ b.
- ◉ c.
- ○ d.
- ○ e.
- ○ f.

8) ***1 point***

Consider that the class Student is associated to the class Course. A Java program implementing the classes is given below.

```
Class Student {
   Course Enrolment[5];
   ...
}
Class Course {
   Student credit[300];
   ...
}
```

From this diagram, the multiplicity of the association at the course end can be inferred to be which one of the following

a. 300
b. 1..300
c. 0..5
d. 1..5
e. 0..300

- ○ a.

Assessment submitted.
X

- ○ b.
- ○ c.
- ◉ d.
- ○ e.

9) ***1 point***

Consider that the class **Advertizer** is associated to the Class **Account**. A Java implementation of the same is given below.

```
public class Advertiser {
    private Account account;
    public Advertiser() {
      account = new   Account(this);
    }
}
```

What can be said about the association multiplicity at the **Account** end?

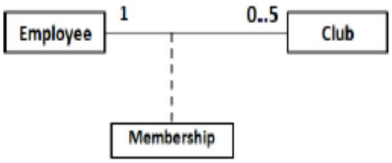
a. 1
b. 0..1
c. *
d. *..1
e. 1..2
f. 1..*

- ◉ a.
- ○ b.
- ○ c.
- ○ d.
- ○ e.
- ○ f.

10) ***1 point***

Assessment submitted.
X

Assume that an organization allows its members to become members of upto 5 clubs. The membership category for a club can be elite, premium, or ordinary. The membership is also associated with a start date and an end date. It is modelled by the following class diagram.



Given that there are 100 employees and 10 clubs, what is a practical bound on the membership objects that might exist?

a. 100
b. 150
c. 500
d. 600
e. 1000
f. 5000

- ○ a.
- ○ b.
- ◉ c.
- ○ d.
- ○ e.
- ○ f.

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers