

- (x) Assume an Employee class with getName () function that returns the name of the employee. Give the output or justify in case of error.

```
Object [ ] obj = new Object[3];
Employee emp = new Employee ("sarita");
obj [0] = emp;
System.out.println(obj[0].getName ( ) );
Employee emp2 = obj [0];
System.out.println (emp2.getBName( ) );
```

2 Answer following questions : (attempt any **three**) **18**

- (i) Explain the use of "this" keyword and super () with an example.
- (ii) Explain the use of synchronized keyword with an example.
- (iii) What is serialization ? Explain in detail with example.
- (iv) Explain the life cycle of thread in detail.

3 Answer following questions : (Attempt any **three**) **18**

- (i) Explain abstract class and its use with example.
- (ii) Write a program to make a mark list of students. Following functionalities have to be incorporated :
 - (a) Take in number of students from user.
 - (b) The name of the student and marks has to be taken from user.
 - (c) In case marks entered < 0 then throw an exception displaying "illegal marks". Make Custom exception.
 - (d) If marks > 40 then display "PASS".
- (iii) Explain the different ways to create a thread with example.
- (iv) Explain adapter class with an example.

4 Answer following questions : (attempt any **three**) 18

- (i) What is Event Listeners ? KeyListener Interface by giving example.
 - (ii) What is an applet ? How arguments can be passed to an applet ? Explain with example.
 - (iii) Explain different types of layout manager.
 - (iv) Explain event delegation model. Also state the hierarchy of event classes.
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