

Reg. No. \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**FOURTH SEMESTER B.TECH DEGREE EXAMINATION, JUNE 2017**

Course Code: **CS206**

Course Name: **OBJECT ORIENTED DESIGN AND PROGRAMMING (CS)**

Max. Marks: 100

Duration: 3 Hours

**PART A**

*Answer all questions.*

1. Write short notes on any two Object Oriented concepts. (3)
2. Differentiate between while and do-while iterative statements. (3)
3. What are the roles of a constructor? (3)
4. Compare private, protected, and public access modifiers. (3)

**PART B**

*Answer any two questions.*

5. a. What is the role of a Java Virtual Machine? (3)  
b. Describe any six features of Java language. (6)
6. a. Summarize the different data types in Java. (4.5)  
b. Implement the following entities as Java classes with suitable instance variables and methods: i) Bank Account; ii) Vehicle. (4.5)
7. a. Implement the following entities as Java classes with suitable instance variables and methods: i) Student. (4.5)  
b. Describe the control statements in Java. (4.5)

**PART C**

*Answer all questions.*

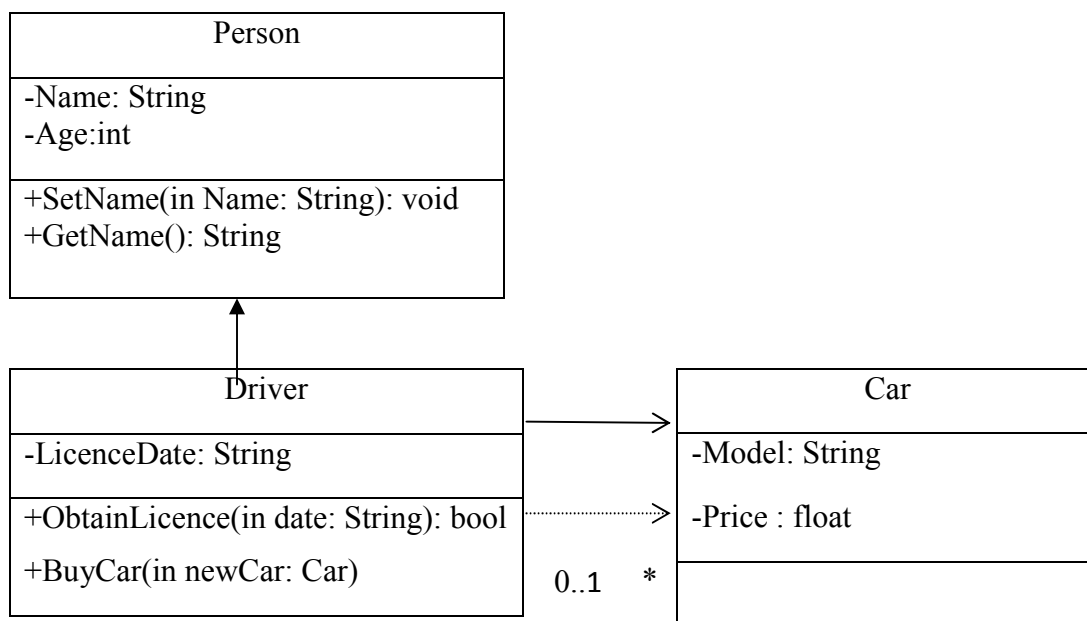
8. Explain the concept of method overriding with an example. (3)
9. What happens if exceptions are not handled? (3)
10. Write the Java code for reading the contents of a file. (3)
11. Show using Java code how three threads can be created using Runnable interface. (3)

**PART D**

*Answer any two questions.*

12. a. List any six built-in packages in Java. (2)  
b. Explain the role of access modifiers when packages are used in Java. (2.5)  
c. Differentiate between try-catch and throws statements. (4.5)
13. a. Describe the concept of interface in Java. (1)

- b. Give an outline of the java implementation of the class diagram shown below.(3.5)



- c.) What are the various ways of using import statement? (4.5)  
 14. Summarize the Character stream classes with the help of class hierarchy diagram. (9)

### PART E

*Answer any four of the following questions*

15. a. Write short notes on any four methods of String class. (8)  
 b. What is the difference between using “==” and *equals()* method when comparing string type? (2)
16. a. Differentiate between an Applet and a Frame. (5)  
 b. Write a java program using JDBC API to verify the login credentials of a user. (5)
17. a. Explain the Delegation Event Model. (5)  
 b. Identify two event types each generated by a Button, TextField, Checkbox, and Frame. (5)
18. Write an AWT based Java program to implement a basic calculator. (10)
19. a. Summarize any three features of Swing API. (5)  
 b. List any four Containers and Component classes of Swing API. (4)
20. a. Write an applet based java program to add two numbers. (5)  
 b. Explain the steps using Java code for correcting a Java program to a data base using JDBC API. (5)

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