

Total No. of Questions : 8]

SEAT No. :

PC1763

[6353]-81

[Total No. of Pages : 3

T.E. (Electronics Engineering) (Electronics & Telecommunication)

FUNDAMENTALS OF JAVA PROGRAMMING

(2019 Pattern) (Semester-I) (Elective-I) (304185 C)

Time : 2 ½ Hours]

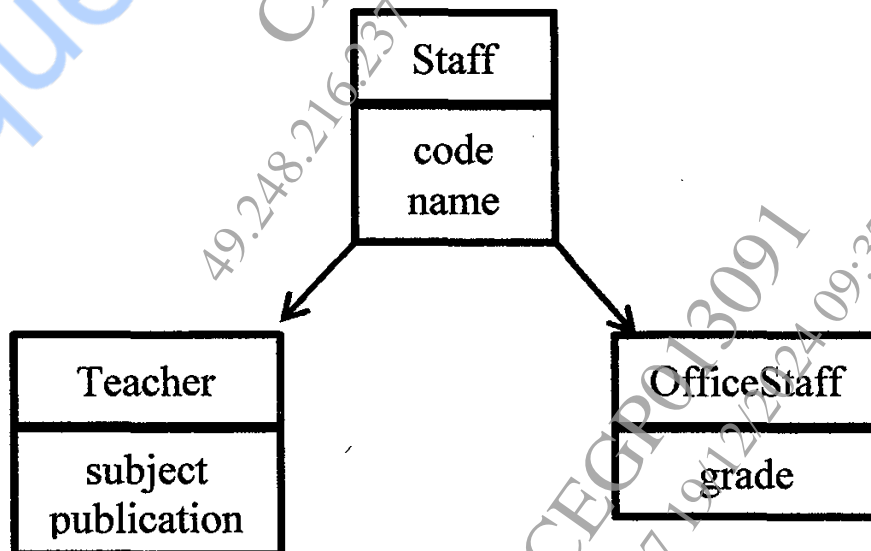
[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

Q1) a) Explain abstract class and abstract methods with an example. [5]

- b) An educational institute wishes to maintain a database of its employee. The database is divided into a number of classes whose hierarchical relationship is shown in following diagram. Define all the classes and method to create the database for 2 different object of each derived class and initialize it with data. Also, display the initialized data with the appropriate method. [10]

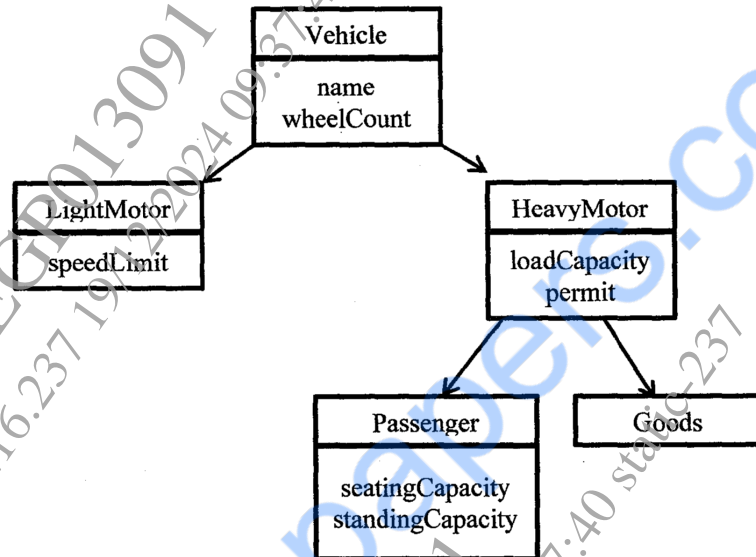


c) Differentiate between String and String Buffer class. [3]

OR

P.T.O.

- Q2) a) Write applications of wrapper class with suitable example. [5]
- b) Write a Java program to implement the following class diagram with appropriate methods. [10]



- c) List and explain in short any three methods of String class. [3]
- Q3) a) Correct the following code to rectify the compile error generated if any and justify your answer. Rewrite the corrected code. [8]

```

public interface NewShape {
    void draw() ;
}
public interface Circle extends NewShape {
    void getRadius() ;
    int radius =10;
}
public class NewCircle implements Circle {
    public void getRadius () {
        System.out.println(radius);
    }
}
public class ExtendInterface extends NewCircle {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Circle nc = new Circle() ;
        nc .getRadius() ;
    }
}
  
```

- b) Explain java API packages. [6]  
c) How to hide a class in package ? Explain. [3]

OR

- Q4)** a) What is a interface? What is the major difference between interface and class? [5]  
b) Describe the various forms of the interface implementation. [4]  
c) What is a package ? Explain with the help of simple example. [8]

- Q5)** a) Differentiate between multithreading and Multitasking. [5]  
b) Explain life cycle of an applet. [6]  
c) What is a finally block? Where and how is it used? Give a suitable example. [7]

OR

- Q6)** a) Explain the life cycle of a thread [5]  
b) Explain syntax of try throw and catch block with a suitable example. [5]  
c) Write a program to develop an applet which will accept two values as input from the user and then displays the addition on the screen. [8]

- Q7)** a) What is AWT? What are the differences between AWT and swing? [6]  
b) List out and explain any four commonly used methods of Component class. [4]  
c) Write a program to read from one file and write a sentence in a other file. [7]

OR

- Q8)** a) Write a Java program using Swing to create text field. [7]  
b) Explain the hierarchy of AWT. [5]  
c) Write a code in Java to open a file. [5]

