



SUBJECT: Computing
PAPER NUMBER: Practical – Task 3 SPECIMEN PAPER
DATE:
TIME:

This task encompasses all the topics that you have covered in your Java syllabus and carries a weighting of 40% of Paper 3.

To solve this task you are expected to follow the principles of Object Oriented Programming (OOP). Additionally the use of array of objects, correct access specifiers and meaningful naming conventions are expected to be used. The use of Graphical User Interface (GUI) is not necessary.

Question:

A sailing club has both junior and senior members. Each member has a membership number, a name, surname and a phone number. The membership number should be the same as his/her ID number.

Three classes have been identified:

- Member
- JuniorMember
- SeniorMember

The classes JuniorMember and SeniorMember are related, by single inheritance, to the class Member. The use of array, of type Junior and Senior members are required to hold the information about Members.

Write the respective classes which include the following:

Attributes:

- Membership number which must be unique.
- Name
- Surname
- MobileNumber

Methods:

- Default and Parameterised constructors where necessary.
- Getters and Setters for all attributes.
- The use of the *toString()* method is required to display the members details.

Write a test class called Main_class which displays and performs the functionality of the following main menu:

1. Enter Senior Member
2. Enter Junior Member
3. Display Senior Members
4. Display Junior Members
5. Edit Senior Member
6. Edit Junior Member
7. Exit

Question continues on next page

The use of the following java concepts should be included in the solution:

Main class:

- The creation of two arrays of type Junior and Senior members.
- The creation of instances to enable access to the Junior and Senior classes.

(Total: 40 marks)