

Object - oriented

1) What is Object oriented? Write down difference b/w Object oriented and procedure oriented programming approach.

2) What is class and object? Explain all oop features in java with example.

3) What are the role of setter and getter method ? What is POJO In Java.

4) How to update and retrieve the value of a particular property of an object from another class (Let suppose the property is private) ?

5) Create an Object having two properties and four behaviours (add, subtract, multiply, divide) to perform desired operation. object must have setter and getter and keep all properties private.

6) What is Constructor? List down the key points about constructor.

7) Can we make multiple constructor inside a class? if yes then what is the need of it. Explain,

8) Private constructor is legal or illegal ?

9) What is Singleton class explain with suitable example?

10) What is method overloading ? What are importance of method overloading ? Can we overload the main method in java ?

11) How to pass as many argument to java method?

12) Can we overload the method with var-arg type of argument.

13) Create a class to calculate Area of circle with one data member to store the radius and another to store area value. Create method members

init - to input radius from user

calc - to calculate area

display - to display area

14) Create a class MathOperation with two data member X and Y to store the operand and third data member R to store result of operation. Create method members

init - to input X and Y from user

add - to add X and Y and store in R

multiply - to multiply X and Y and store in R

power - to calculate X Y and store in R

display - to display Result R

15) Create a class MathOperation containing method 'multiply' to calculate multiplication of following arguments.

two integers

three float

all elements of array

one double and one integer

16) Create a class Person with properties (name and age) with following features.

Default age of person should be 18.

A person object can be initialized with name and age.

Method to display name and age of person.

17) Create a class Employee with(empNo ,salary and totalSalary) with following features.  
Only parameterized constructor;  
totalSalary always represent total of all the salaries of all employees created.  
empNo should be auto incremented.  
display total employees and totalSalary using class method.

18) Create class Product (pid, price, quantity) with parameterized constructor. Create a main function in different class (say XYZ) and perform following task:  
Accept five product information from user and store in an array  
Find Pid of product with highest price.  
Create method (with array of product's object as argument) in XYZ class to calculate and return total amount spent on all products. (amount spent on single product=price of product \* quantity of product).

19) Make list of Students having name, roll no., age, score. Write a program to accept 10 students record and arrange the Students based on the score group [0-50], [50-65],[65-80],[80-100].

20) Create class Tile to store the edge length of a square tile , and create another class Floor to store length and width of a rectangular floor. Add method totalTiles(Tile t) in Floor class with Tile as argument to calculate the whole number of tiles needed to cover the floor completely.