SUBJECT NAME :- Object oriented Programming with JAVA.

subject code :- BCS306A.

{3rd sem
VTU 2022 scheme} OOPS with JAVA.

Important Questions.

(solution provided)

Module - 1

(***) Explain four different types of if statements in JAVA with example.

(**) Demonstrate working of break with labels in JAVA

(**) Explain different lexical in JAVA, Explain oop's.

(**) Write a program to sort the elements using for loop. Also discuss different versions of for-loop with examples.

(***) write a program to illustrate break statement with labels.

(***) Explain the following operations with example.
(i) << (ii) >> (iii) >>> (iv) &

(***) Demonstrate the working of enhanced for loop with an example program.

(**) Explain different promotion rules in JAVA

P.T.O.

MODULE - 2

⭐⭐⭐ What are Constructors? Explain two types of Constructors with example.

⭐⭐ Explain memory allocation & use of garbage collector in JAVA.

⭐⭐⭐ Explain call by value & call by reference with example program.

⭐⭐ Explain Static variable & Static methods in JAVA.

⭐⭐ Write a JAVA program demonstrating method overloading.

⭐⭐⭐ Comparison b/w method overloading & method overriding.

⭐⭐⭐ Define Recursion. write a recursive program to find nth fibonacci number.

⭐⭐ Write a program to perform stack operation using proper class & methods.

MODULE - 3

(✶✶✶) what is meant by interface? State its need & write syntax & features of interface.

(✶✶) write a JAVA program to extend interface assuming suitable data.

(✶✶) Explain inheritance & polymorphism features of JAVA. write a single program to implement inheritance & polymorphism in JAVA.

(✶✶) what is abstract class & abstract method? Explain with example.

(✶✶) which are the restrictions present for static declared methods?

(✶✶) Explain how interface is used to achieve multiple inheritances in JAVA.

(✶✶) what is single level inheritance? Explain with suitable example.

(✶✶) which are the restrictions present for static declared methods?

Module - 4

(✶✶✶) what is package? How do we create it. Give the example to create & to access package.

(⭐k) How to add new class to a package? Explain with example.

(⭐k) write a note on 'access protection in java.

(⭐k) Comparison b/w abstract base class & an interface.

(⭐k) What are the ways to access package from another package? Explain with example.

(⭐k) Explain how to define & implement an interface with an example.

(⭐k) Demonstrate working of nested try block with an example.

(⭐k) What is exception, what are the key terms used in exception handling? Explain.

(⭐k) How do you create your own exception class? Explain with a program.

MoDule - 5

(⭐k) Define enumerations. Give an example

(⭐k) Explain how to achieve suspending, resuming & stopping threads with an example program

(⭐k) with syntax explain use of isAlive() & Join() methods.

(viii) Enumerations in Java are class types" - Justify this statement with appropriate examples.

(ix) What are wrapper classes? Explain with examples.

(xiii) What is multithreading? write a program to create multi threads in JAVA.

(xi) What is the need of synchronisation? Explain with an example how synchronisation is implemented in JAVA

(xii) Discuss value() & value of() methods in Enumerations with suitable examples.

(xiii) What is meant by thread priority? How to assign & get the thread priority.