

- N.B.
- 1) All questions are compulsory.
 - 2) Figures to the right indicate marks.
 - 3) Illustrations, in-depth answers and diagrams will be appreciated.
 - 4) Mixing of sub-questions is not allowed.

Q. 1. Attempt All (Each of 5Marks)**(15M)**

(a) Select appropriate option from following.

1. ____ is features of object oriented programming.
a) Inheritance b) Polymorphism c) Encapsulation d) All the above
2. Name the package containing all the Collection Framework classes:
a) java.math b) java.awt c) java.util d) java.lang
3. ____ method is used to check whether a thread is still running or not.
a) join() b) start() c) isAlive() d) None of these
4. ____ is entry point loop in java
a) for b) while() c) do—while() d) if
5. What would be behavior if the constructor has a return type?
a) Compilation error b) Runtime error
c) Compilation and runs successfully d) Only String return type is allowed

(b) Fill in the blanks

(Byte code, synchronized, encapsulation, assignment, synchronize, Unicode, equals, abstraction)

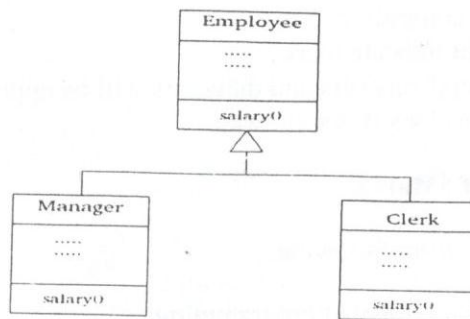
1. The output of the Java compiler is known as ____.
2. Java uses ____ to represent characters.
3. ____ means data hiding
4. = symbol is ____ operator.
5. ____ Keyword is used to implement synchronization?

(c) Short answers.

1. Define array.
2. What is synchronization in reference to a thread?
3. Define exception.
4. Define datatype.
5. Define this keyword.

Q. 2 Attempt the following (Any THREE) (Each of 5Marks)**(15M)**

- a) Enlist different statements in java and Explain looping statement in detail.
- b) Write a program to sort the elements of an Array in descending order.
- c) Explain use of super keyword with a proper program.
- d) Explain String Tokenizer with proper example.
- e) Write a program to perform method overriding for below figure



f) Explain inheritance and brief all types of it.

Q. 3 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- Explain following statements
 - try
 - catch
 - Throw
 - finally
 - throws
- Write short note on serialization.
- Explain Socket class in detail.
- Write a client socket that will accept names from user and send to server. After receiving the names server socket should send the message "Good bye".
- Write a program to demonstrate use of throw in exception handling.
- Explain in detail methods of thread life cycle.

Q. 4 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- Write short note on wrapper classes.
- What do you mean by anonymous inner class? How to create it?
- Write a short on event delegation model.
- Write a program to demonstrate the use of methods in LinkedList.
- Write a program to demonstrate KeyListener on a simple Frame.
- Write short note on Checkbox in AWT and list methods and constructors used in it.

Q. 5 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- List and explain any five features of java in detail.
- Explain finally block in exception handling with proper program.
- What is collection framework?
- Write a program to demonstrate use of static method in java.
- Explain the following methods.
 - charAt()
 - toCharArray()
 - equals()
 - indexOf()
 - toUpperCase()
