GOVT. DEGREE COLLEGE

NANDIKOTKUR- AP

QUESTION BANK

III SEMESTER

B.Sc HONOURS (Computer Science)

OOPs THROUGH JAVA

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UNIT I

Short Answer Questions

1. What are the OOP Principles?
2. What is Encapsulation?
3. What is Polymorphism?
4. What is Inheritance?
5. What are the features of Java Language?
6. What is the need for Java Language?
7. What is platform independency?
8. What is Architecture Neutral?
9. How Java supports platform independency?
10. Why Java is important to Internet?

Essay Answers Questions

11. Explain OOP Principles.
12. Explain the features of Java Language.
13. Compare and Contrast Java with C.
14. Compare and Contrast Java with C++.
15. Explain Constructors with examples.
16. Explain the methods available under String and String Buffer Class.
17. Explain the Date Class methods with examples.
18. Discuss in detail the access specifiers available in Java.
19. Explain the different visibility controls and also compare with each of them.
20. Explain the different methods in java.Util.Arrays class with example.

UNIT II

Short Answer Questions

1. **Define Inheritance**
2. **What are the types of inheritance?**
3. **How is multiple inheritance achieved in java?**
4. **What is the use of super keyword?**
5. **What are object wrappers? Give example.**
6. **What is Inheritance Hierarchy?**
7. **Differentiate overloading and overriding.**
8. **Define polymorphism.**
9. **Differentiate static binding and dynamic binding.**
10. **When will a class be declared as final?**

Essay Answers Questions

1. **Explain the concept of inheritance and its types.**
2. **Explain the concept of overriding with examples.**
3. **What is dynamic binding? Explain with example.**
4. **Explain the uses of reflection with examples.**
5. **Define an interface. Explain with example.**
6. **Explain the methods under "object" class and "class" class.**
7. **What is object cloning? Explain deep copy and shallow copy with examples.**
8. **Explain static nested class and inner class with examples.**
9. **With an example explain proxies.**
10. **Develop a message abstract class which contains playMessage abstract method. Write a different sub-classes like TextMessage, VoiceMessage and FaxMessage classes for to implementing the playMessage method.**

UNIT III

Short Answer Questions

Draw the inheritance hierarchy for the frame and component classes in AWT and Swing.
What are the advantages of using swing over awt?
How do achieve special fonts for your text? Give example.
Give the syntax of drawImage() and copyArea() methods.
What is Adapter class?
Draw the AWT event Hierarchy.
What are the swing components?
What are the methods under Action Interface.
What are the methods under WindowListener Interface.
What is the difference between Swing and AWT?

Essay Answers Questions

Explain the classes under 2D shapes.
Explain event handling with examples.
Explain action event with an example.
What are the swing components. Explain.
Describe the AWT event hierarchy

UNIT IV

Short Answer Questions

What is generic programming?
What are Checked and UnChecked Exception?
What are checked exceptions?
What are runtime exceptions?
What is the difference between error and an exception?
What classes of exceptions may be caught by a catch clause?.
If I want an object of my class to be thrown as an exception object, what should I do?
How to create custom exceptions?
What are the different ways to handle exceptions?
What is the purpose of the finally clause of a try-catch-finally statement

Essay Answers Questions

Explain generic classes and methods.
Explain exception hierarchy.
What are the advantages of Generic Programming?
Explain the different ways to handle exceptions.
How Java handle overflows and underflows?

UNIT V

Short Answer Questions

1. **Describe synchronization in respect to multithreading.**
2. **Explain different way of using thread?**
3. **What is synchronization and why is it important?**
4. **When a thread is created and started, what is its initial state?**
5. **What are synchronized methods and synchronized statements?**
6. **What is daemon thread and which method is used to create the daemon thread?**
7. **What method must be implemented by all threads?**
8. **What kind of thread is the Garbage collector thread?**
9. **What is a daemon thread?**
10. **What is a thread?**

Essay Answers Questions

1. **Explain the different states of a thread.**
2. **Explain thread synchronization with examples.**
3. **Explain the algorithm used for thread scheduling.**
4. **Describe multi threading.**
5. **Explain Deadlocks.**