SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY :: PUTTUR (AUTONOMOUS)

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QUESTION BANK (DESCRIPTIVE)

Subject with Code : OOPs through Java (16MC805)   **Course & Branch**: MCA

Year & Sem: I-MCA & II-Sem   **Regulation:** R16

UNIT –I

JAVA BASICS

1.	Explain various operators in java	12M
2.	Explain the different control structures in java	12M
3.	Explain the following concepts	
	(a) Encapsulation	02M
	(b) Polymorphism	05M
	(c) Inheritance	05M
4.	Explain the java buzzwords in detail	12M
5.	Explain in detail about the constructors.	12M
6.	(a) What is overloading?	3M
	(b) Explain method overloading and constructor overloading with example.	9M
7.	(a) What is recursion?	2M
	(b) Write and explain the program that implements recursion.	10M
8.	Explain	
	(a) Constructors	4M
	(b) Destructors	2M
	(c) super	3M
	(d) this	3M
9.	(a) Explain atleast 8 string methods in detail.	6M
	(b) Write a java program to compare two strings.	6M
10.	Write a java program to implement matrix ADT class with operations	12M
	(a) Reading (b) Writing (c) Addition (d) Subtraction (e) Printing	

UNIT –II

INHERITANCE, INTERFACES, INNER CLASSES, PACKAGES

1. (a) What is inheritance?   2M

   (b) Explain inheritance types and advantages with appropriate program.   10M

2. (a) What is an interface?   2M

   (b) How will you define and access an interface?   10M

3. Explain the late binding and early binding in polymorphism with an example program.   12M

4. (a) What is package?   4M

   (b) How will you create and access a package?   8M

5. (a) What is abstract class? Explain.   4M

   (b) Give differences between an interface and an abstract class.   8M

6. (a) Explain the final and super in detail   6M

   (b) Write a program that illustrates the preventing of inheritance.   6M

7. (a) Write a program that implements multilevel hierarchy. Explain.   6M

   (b) Write a program that illustrates the abstract class. Explain.   6M

8. (a) What is an Inner class? What are its uses?   6M

   (b) Write a program that illustrates inner class.   6M

9. Explain anonymous and static inner classes in detail.   12M

10. Write a program that implements package and inheritance concepts.   12M

UNITI-III

Data structure creation and manipulation, Files, Networking

1.	Explain in detail about the ArrayList in detail with a program.	12M
2.	Explain in detail about the LinkedList in detail with appropriate program.	12M
3.	(a) What is StringTokenizer? Write a program to add the given numbers using StringTokenizer?	5M
	(b) What is a List? Write a program to implement List using LinkedList	7M
4.	Explain the iterator and list-iterator in detail.	12M
5.	(a) Explain the predefined streams in java	5M
	(b) Explain the reading and writing with console I/O.	7M
6.	(a) What is InputStream, OutputStream.	4M
	(b) Explain the methods of InputStream and OutputStream.	8M
7.	Explain the Reader and Writer of character streams with their methods.	12M
8.	(a) What is DataInputStream and DataOutputStream?	6M
	(b) Write a program that demonstrates DataInputStream and DataOutputStream.	6M
9.	Write a java program to read the file contents and copy the content to other file.	12M
10.	(a) What is Datagram? Brief about DataGramPacket.	6M
	(b) Write a java program for DataGram server and client.	6M

UNIT-IV

Exception Handling, Multithreading

1. (a) What is an exception?   4M

   (b) Explain the benefits of handling the exception?   8M

2. (a) Explain the try…catch() block in detail.   7M

   (b) Write a program to handle an exception using try…catch block.   5M

3. Explain the different ways of handling the exceptions in detail.   12M

4. Explain the following

   (a) Exception types   3M

   (b) Uncaught exceptions   4M

   (c) Multiple catch clauses   5M

5. Explain the following in detail with example

   (a) throws   3M

   (b) throw   3M

   (c) finally   6M

6. (a) What is rethrowing of exception, chained exception.   6M

   (b) Write a program to create a user defined exception.   6M

7. (a) What is a thread? What is multithreading?   5M

   (b) Explain the life cycle of a thread.   7M

8. Explain the different ways in which thread can be created. Also write programs for

   each type.   12M

9. (a) Explain the atleast 8 thread methods in detail.   7M

   (b) Explain the various thread priorities.   5M

10. Explain the interthread communication in detail.   12M

UNIT-V

GUI programming, Event handling, Applets

1.	(a) What is an applet? Explain briefly.	5M
	(b) Explain the life-cycle of an applet.	7M
2.	(a) Explain the paint(), repaint(), drawstring() methods.	7M
	(b) Write a simple banner applet program.	5M
3.	Explain the following	
	(a) KeyEvent class	4M
	(b) MouseEvent class.	4M
	(c) MouseWheelEvent class.	4M
4.	(a) Explain the different sources of events.	5M
	(b) Explain the KeyListener, MouseListener, MouseMotionListener interfaces.	7M
5.	Write a program to handle Key events. Also explain in detail.	12M
6.	Write a program to handle Mouse events in detail.	12M
7.	(a) Write about the window fundamentals.	5M
	(b) Explain the methods of Frame windows.	7M
8.	Explain the following	
	(a) Drawing lines	4M
	(b) Drawing rectangles	4M
	(c) Drawing circles	4M
9.	(a) What is JApplet?	3M
	(b) Explain	
	(i) JTextField	3M
	(ii) JButton	3M
	(iii) JCheckBox	3M
10.	Explain the	
	(a) JRadioButton	4M
	(b) JComboBox	4M
	(c) JTable	4M

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