

**Karnataka State Open University
M.Sc (IT) I Semester Practical List**

Time : 3hrs Analysis and Design of Algorithms Max Marks : 100

Write Programs using C and Execute

1. Implement Selection sort technique and find time and space complexity.
2. Implement Insertion sort technique and find time and space complexity.
3. Implement Merge sort technique and find time and space complexity.
4. Implement Hashing technique to determine whether an arbitrary element is present or not.
5. Write a program to find minimal spanning tree traversal considering your own tree.
6. Write a program to find the product of two numbers using Halving and Doubling method.
7. Implement Knapsack problem.
8. Implement Heap sort technique.
9. Implement backtracking algorithm.
10. Implement Job scheduling method.
11. Implement Cassette filling method.

**Karnataka State Open University
M.Sc (IT) II Semester Practical List**

Time : 3hrs**Visual Programming****Max Marks : 100**

Write Programs in Visual Basic or Visual C++ and Execute

1. Create an application to compute compound interest in a bank by accepting rate principle and time through a form containing text boxes and command buttons. Generate Report for 10 set of data.
2. Compute Employee salary Bill by accepting E-name, E-No,Basic salary , Calculate HRA,DA,CCA,PF and calculate gross salary . Generate Report for 10 set of data also generate individual pay slip.
3. Design a student admission details form , store the data in a database and Generate a combination wise list of student who has admitted to a particular Course.
4. Design a book details form to store book details of a library in a database and create an application to display book details depending on author wise, publisher wise and subject wise.
5. Create an application to display list of drugs available in a drug house using menu editor, display different pharmaceutical companies list.
6. Create an application to prepare a bill in a big shopping complex where all the items are available by using menus(select items from a list using list box)
7. Create a note pad of your own.
8. Generate a student marks card by taking the student data from the data base
9. Generate report to display Employee details based on departments.
- 10.Create application to read from a file and write into a file Using binary files.
- 11.Create an application to explore different files in different directories which are in different drives using drive control, directory control and file control tools in a system.
- 12.Simulate a super market with the following specifications in the form.
 - a. Use text boxes for Custname and CustAddress
 - b. Use list box to display the items
 - c. Use list box for selected items
 - d. Use frames option button to select credit or cash
 - e. Use checkbox to select the invoice by e-mail or post.
13. Create an application to display text in different fonts.

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M.Sc (IT) II Semester Practical List

Time: 3hrs

OOAD and UML

Max Marks: 100

Write Programs using C++ /Java and Execute

1. Write a program to demonstrate multiple inheritance.
2. Write a program to demonstrate multi level inheritance.
3. Write a program to demonstrate Overriding.
4. Write a program to demonstrate constructor overloading.
5. Write a program to demonstrate package.
6. Write a program to demonstrate message passing between two objects.
7. Write a program to demonstrate interface.
8. Write a program to demonstrate UML concepts like association and aggregation.
8. Write a program to demonstrate UML concepts like composition and dependency.
9. Write a program to demonstrate UML concepts like realization and relationship between two classes.
10. Write a program to demonstrate UML concepts like collaboration.

MSIT-24L
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M.Sc (IT) II Semester Practical List

Time : 3hrs

Advanced Java

Max Marks : 100

Write Programs and Execute

1. Write a java exception handling program to demonstrate checked Exceptions.
2. Write a java exception handling program to demonstrate unchecked Exceptions.
3. Write a java program Thread life cycle also assign thread priority and display it.
4. Write a java applet to implement applet life cycle.
5. Write a java applet to implement demonstrate simple calculator.
6. Write java applet to demonstrate awt components which should have checkbox, radio button, textbox and labels.
7. Write a java applet to create a widow of subclass of frame to display x,y location of the last mouse click and provides a button to reset the displayed x,y co-ordinates to 0,0.
8. Write a java program to create a menu bar, menu,menu item menu to the menu bar and menu bar to the frame.
9. Write a java applet using swings which displays JLabel, Jcheckbox, Jtogglebutton and Jscrollpane.
10. Write a java program for create a menuing model used in swings . The File menu should include new, open close, Edit menu should include copy and paste, choice menu should include toggle,choice1 ,choice2 and choice3.
11. Write a java networking program to demonstrate to use URLConnection to request a document from the server.
12. Write a java networking program to demonstrate client server interaction.
13. Write a JDBC program to connect the database and verify the username and password from the database.
14. Write a java program to implement server interface using RMI.
15. Write a java program to implement insert and delete queries using JDBC.