Purple = P1 Orange = P2 Green = P3 Blue = P4

S.P.C.C

MODULE-1

- Differentiate between 1) system software and application software. OR What is system software & application software? OR Define System Programming? State difference between Application Programs and System programs? 2) Compare compiler and interpreter.
- 2. Write a short note on Debug monitor.
- 3. Explain the different error recovery techniques.
- 4. Explain run-time storage organization in detail.

MODULE-2

- 1. With reference to assembler explain the following table with suitable example i) MOT ii) POT iii) ST iv) BT v) LT.
- 2. Draw flowchart and explain with databases the working pass 2 of assembler.
- 3. Draw the flowchart of a Pass-I of two pass assembler design and explain in detail.
- 4. Explain forward reference problem and how it is handled in assembler design.
- 5. Explain the design of two pass assembler with flowchart and databases. (Clearly show entries in databases).

MODULE-3

- 1. Explain macro and macro expansion OR Explain different features of macro with example.
- 2. Write a short note on 1) YACC 2) Parameterized M

- 3. With reference to macro processor, explain the following tables with suitable example. i) MNT ii) MDT iii) ALA
- 4. Explain the working of two pass macro processor with neat flowcharts and databases.(Clearly show entries in databases).

MODULE-4

- 1. Explain working of direct linking loader with example, show entries in different databases built by DLL.
- Explain various functions of loader. Compare linking loader and linkage editor. OR Explain different functions of loaders. OR Explain the various functions of a loader.
- 3. For the following grammar construct LL(1) parsing table and parse the string (a-a)
- 4. Explain left recursion with an example.
- 5. Draw flowchart and explain with databases the working pass 1 of macro of processor.
- 6. Explain various functions of loader. Also explain the design and flowchart of Absolute loader.

MODULE-5

- 1. Differentiate Top-Down and Bottom-Up parsing techniques. Explain recursive descent parser with an example. OR Differentiate Top-down and Bottom-up parsing techniques. Explain shift reduce parser in detail.
- 2. Explain the different phases of compiler with suitable example? OR Explain the different phases of compiler. Illustrate all the output after each phase for the following statement OR Explain the different phases of compiler. Illustrate all these phases for the following statement
- 3. Write a note on 1) Java compiler environment. 2) Syntax Directed Definition
- 4. Explain different types of garbage collection and compaction in compilers.
- 5. Construct a predictive parsing table for the grammar.
- 6. Explain the role of finite automata in compiler theory.

- 7. Find FIRST & FOLLOW for the following grammar
- 8. Generate three address code for the following code
- 9. Eliminate left recursion from the following grammar
- 10. Explain the different types of loaders in detail.
- 11. State difference between LL parser and LR parser. OR Compare LR(0), LR(1) and LALR parser.
- 12. What do you mean by operator precedence grammar? With the help of following given grammar. parse the input string
- 13. Garbage collection and compaction
- 14. Write a note on: Input buffering scheme of lexical analyser.
- 15. Construct LR(0) parser table for following grammar.

MODULE-6

- 1. Explain different code optimization techniques with example. OR Explain the different code optimization techniques in compiler design.
- **2.** Explain the different issues in code generation.
- 3. Explain different types of Intermediate code representations. OR Explain different types of Intermediate Code representation with examples?
- 4. Explain different types of text editors in brief.
- 5. Explain the different storage allocation strategies in detail.
- 6. Explain synthesized and Inherited attribute with example.
- 7. Explain different ways to represent three address code.
- 8. Explain the different phases of compiler. Illustrate the output after each phase for the following statement.
- 9. Basic block and flow graph.