

Pune Vidyarthi Griha's
COLLEGE OF ENGINEERING, NASHIK – 4
COMPUTER ENGINEERING DEPARTMENT

Subject : COMPILER

ASSIGNMENT NO – 05

Unit : V

1. Discuss various issues in code generation phase.
2. What is DAG? With suitable illustrations explain the role of DAG in code generation phase.
3. What is loop transformation? What are its types?
4. Write short note on strength reduction and variable propagation.
5. Explain Dynamic Programming algorithm for code generation.
6. Explain with example : 1) Basic blocks and flow graph
2) Peephole Optimization
7. What is need for next-use information? Explain how to compute next-use information.
8. What is DAG? Explain its use in code generation. Generate DAG :
T1 = A + B
T2 = C + D
T3 = E – T2
T4 = T1 – T3
9. Explain the tree labelling algorithm with example?
- 10.

Determine cost of following instruction sequence.

(Clearly mention your assumptions)

```
MOV b, R0
ADD c, R0
MOV R0, a
MOV *R1, *R0
ADD *R2, *R0
```

***** **Best of Luck** *****