**Sardar Vallabhbhai Patel Institute of Technology, Vasad**

**Assignment 5 (System Programming-2150708)**

**Date: 25/9/18**

1. What is main task of semantic analysis phase? Explain inherited and synthesized attributes in detail with example.
2. By taking the example of factorial program explain how activation record will look like for every recursive in case of factorial (3).
3. **Explain the terms Binding and Binding Times.**
4. **Explain any three Code Optimization Techniques. (OR)**
5. List out and explain various optimizing transformations of a compiler by giving suitable examples.
6. **What is Peephole optimization? Explain any two optimization transformations in detail.**
7. Which data structure is used for automatic dynamic allocation and memory access? Explain with suitable example.
8. Explain use of value number in local optimization.
9. Explain types of intermediate code representation of expression during compilation in detail.
10. **What is the use of static pointer and dynamic pointer in compiler? Explain working of** Display with suitable example.
11. How compiler implements scope rules?
12. **Explain working of triple, quadruples and indirect triples with example.**
13. Explain memory allocation in block structured language.
14. **Explain Absolute loader, Bootstrap loader, relocating loader with example.**
15. Explain Object Module of a Program Unit P in Linker.
16. **What is program relocation? How relocation is performed by linker? Explain with** example.
17. **What is Overlay? Explain the execution of an overlay structured program.**
18. **Explain Self relocating program and overlay structure program.**
19. Explain the term loader with its basic function.
20. Explain in brief design of linker.
21. **What is interpreter? Explain benefits of interpreter. Compare interpreter and compiler.**
22. Explain the drawbacks and benefits of Interpretation
23. Explain design of an editor.
24. **What is interpreter? Explain pure & impure interpreters.**
25. List out different forms of editor and explain each of them.

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