



**SATHYABAMA**

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

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### ASSIGNMENT - III

**Program : B.E/B.Tech-CSE/IT**

**Max. Marks: 15**

**Course : Compiler Design**

**Course code: SCS1303**

**Sem : V**

**Batch : 2018-2022**

#### Part-A (MCQ/FIB)

**Answer ALL the questions**

**(5×1=5)**

1. Code generation phase generates:
  - a. Three-address code
  - b. Assembly code
  - c. Machine code
  - d. All the above
2. Relocatable machine code requires:
  - a. Assembler, linker and loader
  - b. Linker and loader
  - c. Linker
  - d. Loader
3. Instructions involving \_\_\_\_\_ are usually faster than those involving other operands.
  - a. Memory
  - b. Register
  - c. Absolute memory
  - d. All three options.
4. \_\_\_\_\_ is the process of deciding what values a register must hold.
5. A \_\_\_\_\_ keeps track of the location wherever the current value of the name can be found at runtime.

#### Part-B (Short Answers)

**Answer ALL the questions**

**(5×1=5)**

1. What are the issues in the design of code generator?
2. Give the variety of forms in target program.
3. What are the uses of register and address descriptors in code generation?
4. What is the use of next-use information?
5. Generate code for the following C statement:  
$$x=a/(b+c)-d*(e+f)$$

#### Part-C (Long Answer)

**Answer ALL the questions**

**(1×5=5)**

1. Explain code generation phase with simple code generation algorithm. Write the code sequence for :  $d=(a-b)+(a-c)+(a-c)$