X

(https://swayam.gov.in) (https://swayam.gov.in/nc_details/NPTEL)

[redacted]

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Compiler Design (course)

Click to register for Certification exam (https://examform.nptel.ac.in/2025_01/exam_form/dashboard)

If already registered, click to check your payment status

Course outline

- About NPTEL ()
- How does an NPTEL online course work? ()
- Week 0 : ()
- Week 1 ()
- Week 2 ()
- Week 3 ()
- Week 4 ()
- Week 5 ()

Week 9 : Assignment 9

The due date for submitting this assignment has passed.

Due on 2025-03-26, 23:59 IST.

Assignment submitted on 2025-03-15, 22:38 IST

1) ***1 point***

Self-organizing list-based symbol tables improve performance primarily due to:

a) Locality of reference in the input program
b) Locality of reference in the compiler's symbol access patterns
c) Both (a) and (b)
d) None of the above

- (●) a)
- ( ) b)
- ( ) c)
- ( ) d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
c)

2) Most frequent operation on a symbol table is ***1 point***

a) Insert
b) Delete
c) Modify
d) Lookup

- ( ) a)

b)

c)

d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
d)

3) ***1 point***

Motivation behind using self-organizing list for symbol table is

a) Ease of implementation
b) Program locality
c) Insertion of symbols
d) None of the other options

a)

b)

c)

d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
b)

4) ***1 point***

To minimize access time, symbol table should be organized as

a) Linear table
b) Tree
c) Hash table
d) Circular list

a)

b)

c)

d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
c)

5) ***1 point***

Quiz: Week 9 : Assignment 9 (assessment?name=190)
Week 10 ()
Week 11 ()
Week 12 ()
DOWNLOAD VIDEOS ()
Text Transcripts ()
Books ()

Activation record stores

a) Parameters
b) Local variables
c) Parameters and local variables
d) Parameters , local variables and code for procedures

- a)
- b)
- c) (selected)
- d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
c)

6) ***1 point***

Which of the following phases of compiler does NOT use symbol table?

a) Semantic analysis
b) Code generation
c) Code optimization
d) None of the given options

- a)
- b)
- c)
- d) (selected)

Yes, the answer is correct.
Score: 1

Accepted Answers:
d)

7) If two types have same name they can be ***1 point***

a) Name equivalent
b) Structurally equivalent
c) Both name and structurally equivalent
d) May not be name equivalent

- a)
- b)
- c) (selected)
- d)

Yes, the answer is correct.

Score: 1

Accepted Answers:

c)

8) ***1 point***

Which type of compiler typically benefits from using a separate symbol table for each scope?

a) Single-pass compilers
b) Multi-pass compilers
c) Both single and multi-pass compilers
d) None of the given options

- a)
- b)
- c)
- d)

No, the answer is incorrect.
Score: 0

Accepted Answers:

a)

9) Symbol table data is filled by ***1 point***

a) Lexical analyzer
b) Parser
c) Both lexical analyzer and parser
d) Neither lexical analyzer nor parser

- a)
- b)
- c)
- d)

Yes, the answer is correct.
Score: 1

Accepted Answers:

c)

10) ***1 point***

Which of the following is NOT likely to be kept in a symbol table?

a) Name
b) Location
c) Scope
d) None of the other options

- a)
- b)
- c)

d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
d)

11) ***1 point***

What is the primary purpose of a symbol table in a compiler?

a) To store machine code instructions
b) To optimize runtime performance
c) To store and retrieve identifier-related information efficiently
d) To generate intermediate code

a)
b)
c)
d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
c)

12) ***1 point***

Which of the following data structures is best suited for managing scope information in a symbol table?

a) Stack
b) Queue
c) Linked List
d) Heap

a)
b)
c)
d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
a)

13) ***1 point***

Which optimization technique benefits the most from information stored in a symbol table?

a) Constant propagation
b) Loop unrolling
c) Dead code elimination
d) Instruction pipelining

- a)
- b)
- c)
- d)

Yes, the answer is correct.
Score: 1

Accepted Answers:
a)