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Course outline

About
NPTEL ()

How does an
NPTEL
online
course
work? ()

Week 0 : ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 10 : Assignment 10

The due date for submitting this assignment has passed.

Due on 2025-04-02, 23:59 IST.

Assignment submitted on 2025-03-22, 22:06 IST

1) Which of the following is NOT possible to realize if activation record is static **1 point**

- ☐ (A) Passing parameters
- ☐ (B) Creating local variables
- ☒ (C) Supporting recursion
- ☐ (D) None of the other options

Yes, the answer is correct.

Score: 1

Accepted Answers:

(C) Supporting recursion

2) Control link points to the **1 point**

- ☐ (A) Current activation record
- ☒ (B) Parent activation record
- ☐ (C) Child activation record
- ☐ (D) None of the other options

Yes, the answer is correct.

Score: 1

Accepted Answers:

(B) Parent activation record

3) Intermediate code generation for a compiler is **1 point**

- ☐ (A) Must
- ☒ (B) Optional

Week 6 ()**Week 7 ()****Week 8 ()****Week 9 ()****Week 10 ()**

☒ Lecture 47 :
Runtime
Environment
(unit?
unit=100&less
on=101)

☐ Lecture 48 :
Runtime
Environment
(Contd.) (unit?
unit=100&less
on=102)

☐ Lecture 49 :
Runtime
Environment
(Contd.) (unit?
unit=100&less
on=103)

☐ Lecture 50 :
Intermediate
Code
Generation
(unit?
unit=100&less
on=104)

☐ Lecture 51 :
Intermediate
Code
Generation
(Contd.) (unit?
unit=100&less
on=105)

☐ Lecture
Materials
(unit?
unit=100&less
on=106)

☐ Feedback
Form (unit?
unit=100&less
on=107)

- ☐ (C) Depends on language
☐ (D) None of the other options

Yes, the answer is correct.

Score: 1

Accepted Answers:

(B) *Optional*

4) P-code is used for

1 point

- ☒ (A) Stack-based machine
☐ (B) Accumulator based machine
☐ (C) Two operand addresses
☐ (D) None of the other options

Yes, the answer is correct.

Score: 1

Accepted Answers:

(A) *Stack-based machine*

5) In the activation record, local variables can be accessed from frame pointer with offset value

1 point

- ☐ (A) Positive
☒ (B) Negative
☐ (C) May be positive or negative
☐ (D) Cannot be accessed

Yes, the answer is correct.

Score: 1

Accepted Answers:

(B) *Negative*

6) Access link points to the

1 point

- ☐ (A) Current activation record
☐ (B) Parent activation record
☐ (C) Child activation record
☒ (D) None of the other options

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B) *Parent activation record*

7) If pointer is supported in the high-level language,

1 point

- ☒ (A) Must also be supported in the intermediate language
☐ (B) May not be supported in the intermediate language
☐ (C) Depends on language
☐ (D) None of the other options

No, the answer is incorrect.

☐ Week 10 :
Assignment
Solution (unit?
unit=100&less
on=177)

☒ **Quiz: Week
10 :
Assignment
10
(assessment?
name=191)**

Week 11 ()

Week 12 ()

**DOWNLOAD
VIDEOS ()**

**Text
Transcripts
()**

Books ()

Score: 0

Accepted Answers:

(B) May not be supported in the intermediate language

8) Frame pointer points to the

1 point

- ☒ (A) Current activation record
- ☐ (B) Parent activation record
- ☐ (C) Child activation record
- ☐ (D) None of the other options

Yes, the answer is correct.

Score: 1

Accepted Answers:

(A) Current activation record

9) "Display" helps to locate easily

1 point

- ☐ (A) Local variables
- ☐ (B) Global variables
- ☒ (C) Non-local variables
- ☐ (D) All of the other options

Yes, the answer is correct.

Score: 1

Accepted Answers:

(C) Non-local variables

10) An intermediate language should be

1 point

- ☐ (A) Close to target machine
- ☐ (B) Machine independent
- ☐ (C) All operators of high-level language supported
- ☒ (D) All of the other options

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B) Machine independent

11)

1 point

Which of the following is a key purpose of the stack pointer in an activation record?

- (A) To store the base address of the current function
- (B) To manage dynamic memory allocation
- (C) To track the top of the runtime stack
- (D) To store global variables

- ☐ (A)
- ☐ (B)
- ☒ (C)
- ☐ (D)

Yes, the answer is correct.

Score: 1

Accepted Answers:

(C)

12)

1 point

What happens if recursion is attempted in a system with a static activation record?

- (A) It executes successfully but inefficiently
- (B) It results in incorrect execution since previous function calls get overwritten
- (C) It executes normally without issues
- (D) It leads to infinite recursion by default

☐ (A)

☒ (B)

☐ (C)

☐ (D)

Yes, the answer is correct.

Score: 1

Accepted Answers:

(B)

13)

1 point

What is the primary advantage of using intermediate code in a compiler?

- (A) It simplifies code generation for multiple target machines
- (B) It improves the execution speed of the compiled program
- (C) It eliminates the need for optimization
- (D) It ensures that all high-level language features are directly mapped to assembly

☒ (A)

☐ (B)

☐ (C)

☐ (D)

Yes, the answer is correct.

Score: 1

Accepted Answers:

(A)