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



## Course outline

How does an  
NPTEL online  
course work?

()

Week 0 : ()

Week 1 ()

● Lecture 01 :  
Introduction  
(unit?  
unit=17&lesson  
=18)

○ Lecture 02 :  
Introduction  
(Contd.) (unit?  
unit=17&lesson  
=19)

○ Lecture 03 :  
Introduction  
(Contd.) (unit?  
unit=17&lesson  
=20)

○ Lecture 04 :  
Introduction

# Week 1 : Assignment 1

The due date for submitting this assignment has passed.

**Due on 2022-02-09, 23:59 IST.**

As per our records you have not submitted this assignment.

1) What role does intermediate code play?

**1 point**

- a) Retargeting code
- b) Program analysis
- c) Code optimization
- d) Code check

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) *Retargeting code*

2) What is the name of the phase in which the compiler scans the input sequence?

**1 point**

- a) lexical analysis
- b) output scanner
- c) structural analysis
- d) syntax analysis

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) *lexical analysis*

(Contd.) (unit?  
unit=17&lesson  
=21)

○ Lecture 05 :  
Introduction  
(Contd.) (unit?  
unit=17&lesson  
=22)

○ Lecture 06 :  
Introduction  
(Contd.) (unit?  
unit=17&lesson  
=23)

○ Lecture  
Materials (unit?  
unit=17&lesson  
=24)

○ Quiz: Week 1 :  
**Assignment 1**  
(assessment?  
name=135)

○ Feedback Form  
(unit?  
unit=17&lesson  
=25)

○ Assignment 1  
Solution (unit?  
unit=17&lesson  
=148)

**Week 2 ()**

**Week 3 ()**

**Week 4 ()**

**Week 5 ()**

**Week 6 ()**

**Week 7 ()**

**Week 8 ()**

**Week 9 ()**

3) Which computer program takes a high-level language and translates it to assembly language? **1 point**

- a)Linker
- b)Assembler
- c)Compiler
- d)Interpreter

No, the answer is incorrect.

Score: 0

Accepted Answers:

*c) Compiler*

4) Compiler helps in debugging via **1 point**

- a) Printing variable values
- b) Slower execution of the program
- c) Additional code embedding
- d) None of the above options

No, the answer is incorrect.

Score: 0

Accepted Answers:

*c) Additional code embedding*

5) Most of the programming language follows **1 point**

- a) dynamic scoping
- b) static scoping
- c) both static and dynamic scoping
- d) Neither static nor dynamic scoping

No, the answer is incorrect.

Score: 0

Accepted Answers:

*b) static scoping*

6) Which temporary variables must be allocated for the best code execution speed? **1 point**

- a) CPU registers
- b) Swap space
- c) Main Memory
- d) None of the above options

No, the answer is incorrect.

Score: 0

Accepted Answers:

*a) CPU registers*

7) What is the name of the syntax analysis output? **1 point**

**Week 10 ()**

- a) Key tree
- b) binary tree
- c) parse tree
- d) sparse tree

**Week 11 ()**

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) *parse tree*

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**Books ()**

8) Converting a hardware description into actual circuitry is known as

**1 point**

- a) HDL compilation
- b) Circuit compilation
- c) Silicon compilation
- d) None of the other options

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) *Silicon compilation*

9) What are the results of the lexical analysis phase?

**1 point**

- a) tokens
- b) keyword
- c) symbols
- d) None of the above options

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) *tokens*

10) Which of the following is a result of a compiler?

**1 point**

- a) Error messages
- b) Warnings
- c) Target code
- d) All of the above options

No, the answer is incorrect.

Score: 0

Accepted Answers:

d) *All of the above options*

11) Loops are the major targets for optimization since

**1 point**

- a) Loop body is repeated several times
- b) Condition check takes exceedingly large time

- c) Loop may goto infinite execution
- d) None of the other options

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) *Loop body is repeated several times*

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## Course outline

How does an  
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course work?  
( )

Week 0 : ( )

Week 1 ( )

Week 2 ( )

Lecture 07 :  
Lexical  
Analysis (unit?  
unit=26&lesson  
=27)

Lecture 08 :  
Lexical  
Analysis  
(Contd.) (unit?  
unit=26&lesson  
=28)

Lecture 09 :  
Lexical  
Analysis  
(Contd.) (unit?

# Week 2 : Assignment 2

The due date for submitting this assignment has passed.

Due on 2022-02-09, 23:59 IST.

As per our records you have not submitted this assignment.

- 1) When the lexical analyzer reads the source code, it scans the code 1 point  
(A) Line-by-line  
(B) Word-by-word  
(C) Letter-by-letter  
(D) Whole at a time

- (A)  
 (B)  
 (C)  
 (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:  
(C)

- 2) 1 point  
The regular expression for strings (over alphabet set {0,1}) in which a '0' is always followed by at least two 1's (that is "11") is  
(A)  $1^*(011)^*$   
(B)  $1^*(011)^*$   
(C) Not possible to create such a regular expression  
(D) None of the other options

unit=26&lesson  
=29)

- (A)
- (B)
- (C)
- (D)

○ Lecture 10 :  
Lexical  
Analysis  
(Contd.) (unit?  
unit=26&lesson  
=30)

No, the answer is incorrect.  
Score: 0

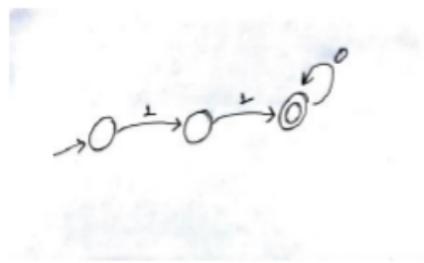
Accepted Answers:

(A)

3)

1 point

According to the following diagram which one of the following strings is not accepted by the diagram?



- (A) 110  
(B) 1111  
(C) 110000  
(D) 1100

○ Lecture  
Materials (unit?  
unit=26&lesson  
=31)

○ Quiz: Week 2 :  
Assignment 2  
(assessment?  
name=140)

○ Feedback Form  
(unit?  
unit=26&lesson  
=33)

○ Assignment 2  
Solution (unit?  
unit=26&lesson  
=117)

**Week 3 ()**

**Week 4 ()**

**Week 5 ()**

**Week 6 ()**

**Week 7 ()**

**Week 8 ()**

**Week 9 ()**

**Week 10 ()**

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(B)

4) The number of possible epsilon transitions from a state in an NFA is 1 point

- (A) Many  
(B) At most one  
(C) One  
(D) Zero

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

**Week 11 ()**

**Week 12 ()**

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**Text  
Transcripts ()**

**Books ()**

Score: 0

Accepted Answers:

(A)

5) Between NFA and DFA which one is more powerful

**1 point**

- (A) NFA
- (B) DFA
- (C) both are powerful
- (D) Cannot be said definitely

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

6) A regular expression represents

**1 point**

- (A) Cannot represent any language
- (B) Part of a language
- (C) Constituent strings of a language
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

7) Finite automata is an implementation of

**1 point**

- (A) Part of a Regular expression
- (B) Any grammar
- (C) Regular expression
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

8) Which is easier to implement, the NFA or the DFA?

*1 point*

- (A) DFA
- (B) NFA
- (C) Equal effort needed
- (D) Cannot be said definitely

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

9) The regular expression  $(0|1)^*00$  will accept all strings

*1 point*

- (A) Divisible by 2
- (B) Divisible by 4 with minimum length 2
- (C) Divisible by 2 with minimum length 2
- (D) Divisible by 4

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

10) What exactly is a lexeme?

*1 point*

- (A) Any sequence of characters
- (B) Sequence of characters defining a token
- (C) Same as a token
- (D) Not related to any token

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

11) Output of the tool lex is

*1 point*

- (A) A C program
- (B) An executable code
- (C) A parser
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

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How does an  
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Week 0 : ( )

Week 1 ( )

Week 2 ( )

Week 3 ( )

Lecture 12 :  
Lexical  
Analysis  
(Contd.) (unit?  
unit=34&lesson  
=35)

Lecture 13 :  
Lexical  
Analysis  
(Contd.) (unit?  
unit=34&lesson  
=36)

# Week 3 : Assignment 3

The due date for submitting this assignment has passed.

Due on 2022-02-16, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

Which of the following strings is not matched by the regular expression  $(B(AB|A)^*D)^*$

- a) BD
- b) BABD
- c) BAADBAABDBAD
- d) BAADBAABBDBAD

a

b

c

d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

2) At a time, a DFA can be in

1 point

- a) Many states
- b) No state
- c) Only a single state
- d) None of the other options

a

- Lecture 14 :  
Lexical  
Analysis  
(Contd.) (unit?  
unit=34&lesson  
=37)
- b  
 c  
 d
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
c
- 3) 1 point  
Between NFA and DFA which one has the potential to have more states in it?
- a) NFA  
b) DFA  
c) Cannot be said deterministically  
d) Both have same number of states
- a  
 b  
 c  
 d
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
b
- 4) At a time, an NFA can be in 1 point  
a) Many states  
b) No state  
c) Only a single state  
d) None of the other options
- a  
 b  
 c  
 d
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
a
- 5)  $\epsilon$ -closure of a state includes 1 point  
a) All states reachable from it by  $\epsilon$  transitions only  
b) All states reachable from it by single  $\epsilon$  transitions only  
c) All states from which this state can be reached using  $\epsilon$  transitions  
d) All states from which this state can be reached using  $\epsilon$  transitions and all states reachable from it by  $\epsilon$  transitions only

[Week 11 \(\)](#)

- a
- b
- c
- d

[Week 12 \(\)](#)

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No, the answer is incorrect.  
Score: 0

Accepted Answers:

a

6) Output of lex program is available in a file named 1 point

- a) lex.l
- b) lex.yy.c
- c) lex.yy.l
- d) lex.c

- a
- b
- c
- d

No, the answer is incorrect.  
Score: 0

Accepted Answers:

b

7) Lex specification file sections are demarcated by 1 point

- a) %
- b) {%
- c) %}
- d) %%

- a
- b
- c
- d

No, the answer is incorrect.  
Score: 0

Accepted Answers:

d

8) Which of the following is a lexical analysis tool? 1 point

- a) Jflex
- b) Flex
- c) Lex
- d) All of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

- 9) Number of components in formal definition of a grammar is 1 point
- a) 2
  - b) 3
  - c) 4
  - d) None of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

- 10) In a lex specification file "?" stands for 1 point
- a) Exactly one occurrence of preceding regular expression
  - b) One or more occurrence of preceding regular expression
  - c) 0 or more occurrences of preceding regular expression
  - d) None of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

- 11) Number of sections in a lex program is 1 point
- a) 4
  - b) 3
  - c) 2
  - d) 1

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

*b*

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## Course outline

How does an  
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Week 0 : ( )

Week 1 ( )

Week 2 ( )

Week 3 ( )

Week 4 ( )

Lecture 17 :  
Parser (Contd.)  
(unit?  
unit=42&lesson  
=43)

Lecture 18 :  
Parser (Contd.)  
(unit?  
unit=42&lesson  
=44)

# Week 4 : Assignment 4

The due date for submitting this assignment has passed.

Due on 2022-02-23, 23:59 IST.

As per our records you have not submitted this assignment.

- 1) Language accepted by a push down automata is 1 point
- (A) Context sensitive
  - (B) Context free
  - (C) Regular
  - (D) None of the other options

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

B

- 2) 1 point
- An ambiguous grammar has the potential to produce multiple parse trees for
- (A) Unique input string
  - (B) Multiple input strings
  - (C) At most two input strings
  - (D) None of the other options

- A

- Lecture 19 :  
Parser (Contd.)  
(unit?  
unit=42&lesson  
=45)
- Lecture 20 :  
Parser (Contd.)  
(unit?  
unit=42&lesson  
=46)
- Lecture 21 :  
Parser (Contd.)  
(unit?  
unit=42&lesson  
=47)
- Lecture  
Material (unit?  
unit=42&lesson  
=48)
- Quiz: Week 4 :  
**Assignment 4**  
**(assessment?**  
**name=147)**
- Feedback Form  
(unit?  
unit=42&lesson  
=49)
- Assignment 4  
Solution (unit?  
unit=42&lesson  
=152)
- 
- Week 5 ()**
- 
- Week 6 ()**
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- Week 7 ()**
- 
- Week 8 ()**
- 
- Week 9 ()**
- 
- Week 10 ()**
- 
- Week 11 ()**
- 
- B  
 C  
 D
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
*B*
- 3) **1 point**  
For the grammar given below, number of parse trees to produce an empty string is  
 $A \ AA \mid ( A ) \mid \epsilon$   
(A) One  
(B) Two  
(C) Infinite  
(D) None of the other options
- A  
 B  
 C  
 D
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
*C*
- 4) For the grammar given below, FOLLOW(B) is **1 point**  
 $S \ a A b B \mid b A a B \mid \epsilon$   
A S  
B S  
(A) {a, b}  
(B) {a, b, \$}  
(C)  $\emptyset$   
(D) None of the other options
- A  
 B  
 C  
 D
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
*B*

[Week 12 \(\)](#)

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5) Activation records for recursive programs are created in

**1 point**

- (A) Stack segment
- (B) Data segment
- (C) Code segment
- (D) None of the other options

A  
 B  
 C  
 D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

6) Which of the following grammar rules is/are left recursive?

**1 point**

- (A) A Aa | b
- (B) A Bb, B Aa | c
- (C) A Ba, B Cc, C Ac
- (D) All of the other options

A  
 B  
 C  
 D

No, the answer is incorrect.

Score: 0

Accepted Answers:

D

7) Words of a language constitute

**1 point**

- (A) Set of terminals
- (B) Set of nonterminals
- (C) Set of both terminals and nonterminals
- (D) None of the other options

A  
 B  
 C  
 D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

8) The grammar  $\{E \rightarrow E + T \mid T, T \rightarrow T * F \mid F, F \rightarrow id\}$  is

1 point

- (A) Ambiguous
- (B) Unambiguous
- (C) Partially ambiguous
- (D) None of the other options

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

B

9) The grammar  $\{E \rightarrow E + E \mid E * E \mid id\}$  is

1 point

- (A) Ambiguous
- (B) Unambiguous
- (C) Partially ambiguous
- (D) None of the other options

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

10)

1 point

For a context-free grammar, left-hand side of production rules should contain

- (A) Single nonterminal
- (B) Atmost three grammar symbols
- (C) Atmost two grammar symbols
- (D) None of the other options

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

11) A grammar is ambiguous if

1 point

- (A) its left most and right most derivations are different
- (B) more than one left most derivations exist
- (C) there is no left most derivation
- (D) there is no rightmost derivation

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

B

12)

1 point

A grammar with production rules {  $A \rightarrow Ba \mid Cb$ ,  $B \rightarrow CA$ ,  $C \rightarrow c \mid \epsilon$  } contains

- (A) Left factor
- (B) Left recursion
- (C) Both left factor and left recursion
- (D) None of the other options

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

B

13) For top-down parsing left recursion removal is

1 point

- (A) Mandatory
- (B) Desirable
- (C) Too complex
- (D) Not needed

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

14) Derivation produced by a top-down parser is

1 point

- (A) Leftmost
- (B) Rightmost
- (C) Either leftmost or rightmost
- (D) None of the other options

A

B

C

D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

15) A predictive parser

1 point

- (A) Needs backtracking
- (B) Does not need backtracking
- (C) May not terminate
- (D) None of the other options

A

B

C

D

No, the answer is incorrect.

Score: 0

Accepted Answers:

B

16) For the grammar rules  $\{S \rightarrow Aa \mid bB, A \rightarrow c \mid \epsilon\}$ , FIRST(S) is

1 point

- (A) {b, c}
- (B) {a, b}
- (C) {a, b, c}
- (D) {a, b, c,  $\epsilon$ }

A

B

C

D

No, the answer is incorrect.

Score: 0

Accepted Answers:

C

X



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Week 0 : ([\(\)](#))

Week 1 ([\(\)](#))

Week 2 ([\(\)](#))

Week 3 ([\(\)](#))

Week 4 ([\(\)](#))

Week 5 ([\(\)](#))

Lecture 22 :  
Parser (Contd.)  
(unit?  
unit=50&lesson  
=51)

Lecture 23 :  
Parser (Contd.)  
(unit?

# Week 5 : Assignment 5

The due date for submitting this assignment has passed.

Due on 2022-03-02, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

Consider the grammar  $\{E \rightarrow E + E \mid E * E \mid id\}$ . For the string "id1 + id2 \* id3", in a shift-reduce parsing, the rule applied for the fourth reduction is

- (A)  $E \rightarrow E + E$   
(B)  $E \rightarrow E * E$   
(C)  $E \rightarrow id$   
(D) None of the other options

- (A)  
 (B)  
 (C)  
 (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

unit=50&lesson  
=52)

○ Lecture 24 :  
Parser (Contd.)  
(unit?  
unit=50&lesson  
=53)

○ Lecture 25 :  
Parser (Contd.)  
(unit?  
unit=50&lesson  
=54)

○ Lecture 26 :  
Parser (Contd.)  
(unit?  
unit=50&lesson  
=55)

○ Lecture  
Material (unit?  
unit=50&lesson  
=56)

○ Quiz: Week 5 :  
Assignment 5  
(assessment?  
name=149)

○ Feedback Form  
(unit?  
unit=50&lesson  
=57)

○ Assignment 5  
Solution (unit?  
unit=50&lesson  
=154)

**Week 6 ()**

**Week 7 ()**

**Week 8 ()**

**Week 9 ()**

**Week 10 ()**

**Week 11 ()**

- 2) For the grammar  
 $S \rightarrow AB \mid C$   
 $A \rightarrow bA \mid a$   
 $B \rightarrow abbS \mid bS \mid \epsilon$   
 $C \rightarrow bC \mid \epsilon$   
Follow(A) is  
(A) a, b, \$  
(B) a, \$  
(C) a, b  
(D) b, \$

- (A)  
 (B)  
 (C)  
 (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:  
(A)

- 3) In shift-reduce parsing, handle is at

**1 point**

- (A) Anywhere in the stack  
(B) Bottom of the stack  
(C) Top of the stack  
(D) Nowhere in the stack

- (A)  
 (B)  
 (C)  
 (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:  
(C)

- 4) A bottom-up parser generates

**1 point**

- (A) Left-most derivation in reverse  
(B) Right-most derivation in reverse  
(C) Left-most derivation  
(D) Right-most derivation

- (A)  
 (B)

**Week 12 ()**

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- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

5) In shift-reduce parsing, an accepted input string reduces to

**1 point**

- (A) Start symbol
- (B) \$
- (C) Null
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

6) In Operator Precedence parsing handle is

**1 point**

- (A) Between <. and .>
- (B) After .>
- (C) Before <.
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

7) An operator-precedence parser is a

**1 point**

- (A) Shift-reduce parser
- (B) Bottom-up parser
- (C) Parser constructing derivation in the reverse
- (D) All of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

8) An optimizer Compiler \_\_\_\_\_

**1 point**

- (A) Is optimized to occupy less space
- (B) Is optimized to occupy less space & Optimize the code
- (C) Optimize the code
- (D) None of the mentioned

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

9) For the grammar rule  $T \rightarrow xyS \mid yS$ ,  $\text{First}_{\text{top}}(T)$  equals

**1 point**

- (A)  $\{x\}$
- (B)  $\{x, y, S\}$
- (C)  $\{x, y\}$
- (D)  $\{S\}$

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

10)

**1 point**

By considering the rule  $B \rightarrow tqqS$ , which of the precedence relations between t and q can be inferred?

- (A)  $t \doteq q$  and  $q \doteq q$
- (B)  $t \doteq q$  only
- (C)  $q \doteq t$  and  $t \doteq q$
- (D)  $q \doteq t$  and  $q \doteq q$

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

X



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○ Lecture 27 :  
Parser (Contd.)  
(unit?  
unit=58&lesson  
=59)

○ Lecture 28 :  
Parser (Contd.)

# Week 6 : Assignment 6

The due date for submitting this assignment has passed.

Due on 2022-03-09, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

A canonical set of items for LR(0) parsing is given by {S L. > R, Q R.}. On input symbol '<', the set has

- a. A shift-reduce conflict
- b. A reduce-reduce conflict
- c. Both shift-reduce and reduce-reduce conflicts
- d. None of the other options

a

b

c

d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

2) Error recovery in LR parsing may push

1 point

- a. An input symbol into stack
- b. A state into stack
- c. Both input and state into stack
- d. None of the other options

a

(unit?  
unit=58&lesson  
=60)

- b
- c
- d

○ Lecture 29 :  
Parser (Contd.)  
(unit?  
unit=58&lesson  
=61)

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

○ Lecture 30 :  
Parser (Contd.)  
(unit?  
unit=58&lesson  
=62)

3)  $S \rightarrow B \mid SabS$  1 point  
 $B \rightarrow bB$

In state 0, action for inputs 'a' and 'b' will be as follows.

- a. 'a' will be an error entry and 'b' shift
- b. Both 'a' and 'b' will be shift
- c. 'b' will be an error entry and 'a' shift
- d. Both 'a' and 'b' will be error entries

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

○ Lecture

Material (unit?  
unit=58&lesson  
=63)

○ Quiz: Week 6 :  
**Assignment 6**  
(assessment?  
name=151)

○ Feedback Form  
(unit?  
unit=58&lesson  
=65)

○ Assignment 6  
Solution (unit?  
unit=58&lesson  
=121)

**Week 7 ()**

**Week 8 ()**

**Week 9 ()**

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**Week 12 ()**

4) What is the amount of lookahead in the LALR parser? 1 point

- a. 3
- b. 2
- c. 1
- d. None

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

5) 1 point

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Between SLR, Canonical LR and LALR, which have same number of states

- a. Canonical LR and LALR
- b. SLR and Canonical LR
- c. SLR and LALR
- d. All of them

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

6) In SLR parsing for the grammar 1 point

$$E' \rightarrow E$$

$$E \rightarrow aEbE \mid bEaE \mid \epsilon$$

In state 0, for inputs 'a' and 'b'

- a. Only 'a' will have shift-reduce conflict
- b. Both will have shift-reduce conflict
- c. Only 'b' will have shift-reduce conflict
- d. Neither of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

7)

1 point

In state I we have the items  $A \rightarrow \alpha$ . and  $B \rightarrow \delta.$ , First(A), Follow(A) and Follow(B) contains the symbol 'a'. This leads to

- a. Shift-reduce conflict
- b. Reduce-reduce conflict
- c. Both shift-reduce and reduce-reduce conflicts
- d. No conflicts

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

8)

1 point

Which among the SLR, Canonical LR, and LALR is the most powerful?

- a. SLR
- b. LALR
- c. Canonical LR
- d. All are equally powerful

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

9)

1 point

In state I we have the items  $A \rightarrow \alpha.$  and  $B \rightarrow \delta.$ , First(A), Follow(A) and Follow(B) contains the symbol 'a'. This leads to

- a. Reduce-reduce conflict
- b. Shift-reduce conflict
- c. Both shift-reduce and reduce-reduce conflicts
- d. No conflicts

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

10) In SLR parsing for the grammar

1 point

$$S \rightarrow B \mid S a S$$

$$B \rightarrow b B \mid \epsilon$$

In state 0, for inputs 'a' and 'b'

- a. Both will have shift-reduce conflict
- b. Only 'b' will have shift-reduce conflict
- c. Only 'a' will have shift-reduce conflict
- d. Neither of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

X



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Parser (Contd.)  
(unit?  
unit=66&lesson  
=67)

## Week 7 : Assignment 7

The due date for submitting this assignment has passed.

Due on 2022-03-16, 23:59 IST.

As per our records you have not submitted this assignment.

1) Files generated by YACC are

1 point

- (A) y.tab.c, y.tab.h
- (B) y.tab.c, y.token.h
- (C) y.parse.c, y.tab.h
- (D) None of the other options

- A
- B
- C
- D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

2) Full form of YACC is

1 point

- (A) Yes Another Compiler Constructor
- (B) Yet Another Compiler Constructor
- (C) Yet Another Compiler Compiler
- (D) Neither of the other options

- A
- B

- Lecture 33 :  
Parser (Contd.)  
(unit?  
unit=66&lesson  
=68)
- Lecture 34 :  
Parser (Contd.)  
(unit?  
unit=66&lesson  
=69)
- Lecture 35 :  
Parser (Contd.)  
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unit=66&lesson  
=70)
- Lecture 36 :  
Parser (Contd.)  
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name=153)
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=122)
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- Week 12 ()**
- 
- C  
 D
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
C
- 3) Number of sections in YACC specification file is 1 point
- (A) 1  
 (B) 2  
 (C) 3  
 (D) 4
- A  
 B  
 C  
 D
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
C
- 4) YYSTYPE defines the type for 1 point
- (A) Stack  
 (B) Token  
 (C) Input  
 (D) Queue
- A  
 B  
 C  
 D
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
A
- 5) Token attributes are returned by 1 point
- (A) yytext  
 (B) yylen  
 (C) yyval  
 (D) yylval
- A  
 B

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- C  
 D

No, the answer is incorrect.

Score: 0

Accepted Answers:

*D*

6) Syntax directed translation helps in **1 point**

- (A) Creating parse tree  
(B) Check syntactical correctness of input  
(C) Check if the input has foreign symbols  
(D) None of the other options

- A  
 B  
 C  
 D

No, the answer is incorrect.

Score: 0

Accepted Answers:

*D*

7) File produced by YACC and used by Lex is SLR

**1 point**

- (A) y.tab.c  
(B) y.tab.h  
(C) y.parse.c  
(D) y.parse.h

- A  
 B  
 C  
 D

No, the answer is incorrect.

Score: 0

Accepted Answers:

*B*

8) In YACC rules section \$\$ refers to

**1 point**

- (A) First symbol on right hand side  
(B) Last symbol on right hand side  
(C) Symbol on the left hand side  
(D) Any of them

- A  
 B

C

D

No, the answer is incorrect.

Score: 0

Accepted Answers:

C

9) For a rule "A  $\rightarrow$  B b C" the symbol C will be referred to by

1 point

(A) \$1

(B) \$2

(C) \$3

(D) \$\$

A

B

C

D

No, the answer is incorrect.

Score: 0

Accepted Answers:

C

10) Annotated parse tree means

1 point

(A) Parse tree with attributes

(B) Code generated

(C) Correct parse tree

(D) None of the given options

A

B

C

D

No, the answer is incorrect.

Score: 0

Accepted Answers:

A

X



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○ Lecture 37 :  
Parser (Contd.)  
(unit?)

# Week 8 : Assignment 8

The due date for submitting this assignment has passed.

Due on 2022-03-23, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

Type-expression corresponding to a function that takes as an argument a function that maps an integer to a character and returns an integer is

- (A) (integer character) integer
- (B) integer → (character → integer)
- (C) integer → (integer → character)
- (D) (character → integer) → integer

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

2) A weakly typed system generally makes the program writing

1 point

- (A) Difficult
- (B) Less error prone
- (C) Easy but more error prone
- (D) Difficult but less error prone

unit=74&lesson =75)	<input type="radio"/> (A) <input type="radio"/> (B) <input type="radio"/> (C) <input type="radio"/> (D)	No, the answer is incorrect. Score: 0	
Lecture 38 : Parser (Contd.) (unit? unit=74&lesson =76)	Accepted Answers: (C)		
Lecture 39 : Type Checking (unit? unit=74&lesson =77)	<p>3) A strongly-typed system makes program writing</p> <p>(A) Easy (B) More error prone (C) Difficult but less error prone (D) Easy but more error prone</p>		<b>1 point</b>
Lecture 40 : Type Checking(Cont d.) (unit? unit=74&lesson =78)	<input type="radio"/> (A) <input type="radio"/> (B) <input type="radio"/> (C) <input type="radio"/> (D)	No, the answer is incorrect. Score: 0	
Lecture 41 : Type Checking(Cont d.) (unit? unit=74&lesson =79)	Accepted Answers: (C)		
Lecture Material (unit? unit=74&lesson =80)	<p>4)</p> <p>Which scoping rule necessitates additional code in the final translated program?</p> <p>(A) Static (B) Dynamic (C) Both static and dynamic (D) None of the other options</p>		<b>1 point</b>
Quiz: Week 8 : Assignment 8 (assessment? name=155)	<input type="radio"/> (A) <input type="radio"/> (B) <input type="radio"/> (C) <input type="radio"/> (D)	No, the answer is incorrect. Score: 0	
Feedback Form (unit? unit=74&lesson =81)	Accepted Answers: (B)		
Assignment 8 Solution (unit? unit=74&lesson =123)			
<b>Week 9 ()</b>			
<b>Week 10 ()</b>			
<b>Week 11 ()</b>			

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5) Type checking checks the input 1 point

- (A) Lexically
- (B) Semantically
- (C) Syntactically
- (D) All the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

6) Most programming languages are weakly typed since 1 point

- (A) Such languages put less constraints on the programmer
- (B) Some type errors can only be caught dynamically
- (C) Both of the other options
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

7) Type checking done by the compiler is 1 point

- (A) Static
- (B) Dynamic
- (C) Both static and dynamic
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

8) Array bound check can be done

1 point

- (A) Statically
- (B) Dynamically
- (C) Both statically and dynamically
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

9)

1 point

If the arguments passed to a function call are such that the first and the third arguments are integers while the second one is real, the type expression for the argument list can be

- (A) Integer X Integer X Real
- (B) Real X Integer X Integer
- (C) Integer X Real X Integer
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

10) For strongly-typed languages

1 point

- (A) Only static type checking is done
- (B) Only dynamic checking is done
- (C) Both static and dynamic checking are done
- (D) No type checking is done

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

11) Type equivalence checks whether

1 point

- (A) Two type expressions are same or not
- (B) Two expressions are same or not
- (C) Two statements are same or not
- (D) All of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

12) Type of a statement is

1 point

- (A) Void
- (B) Type error
- (C) Void or type error
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

13)

1 point

The type expression  $(\text{Integer} \times \text{Real}) \rightarrow (\text{Integer} \rightarrow \text{Real})$  corresponds to

- (A) A function that takes an integer and a real as arguments and returns an integer and a real
- (B) A function that takes an integer and a real as arguments and returns a real
- (C) A function that takes an integer and a real as arguments and returns an integer
- (D) A function that takes an integer and a real as arguments and returns a function that takes an integer and returns a real

- (A)
- (B)

- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

14)

**1 point**

Type casting available in many programming languages is an example of

- (A) Type checking
- (B) Type coercing
- (C) Type manipulation
- (D) None of the given options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

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# Week 9 : Assignment 9

The due date for submitting this assignment has passed.

Due on 2022-03-30, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

A desirable property of hash function for symbol table organization is

- (A) Depend on name of the symbol
- (B) Quickly computable
- (C) Avoid clustering for similar names
- (D) All of the other options

(A)

(B)

(C)

(D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

2) Access time of the symbol table will be logarithmic if organized as

1 point

- (A) Linear list
- (B) Tree
- (C) Hash table
- (D) None of the given options

(A)

- Lecture 42 :  
 Type  
 Checking(Contd.) (unit?  
 unit=82&lesson  
 =83)
- (B)  
 (C)  
 (D)
- No, the answer is incorrect.  
 Score: 0
- Accepted Answers:  
 (B)
- 3) **Symbol table could be used for** 1 point  
 (A) Checking type compatibility  
 (B) Suppressing duplication of error messages  
 (C) Storage allocation  
 (D) All of the other options
- (A)  
 (B)  
 (C)  
 (D)
- No, the answer is incorrect.  
 Score: 0
- Accepted Answers:  
 (D)
- 4) 1 point  
**Self-organizing list based symbol tables may show better performance due to**  
 (A) Locality of input program  
 (B) Locality of compiler  
 (C) Both locality of input program and compiler  
 (D) None of the given options
- (A)  
 (B)  
 (C)  
 (D)
- No, the answer is incorrect.  
 Score: 0
- Accepted Answers:  
 (A)
- 5) **Which of the following is NOT likely to be kept in a symbol table?** 1 point  
 (A) Name  
 (B) Location  
 (C) Scope  
 (D) None of the other options
- Week 10 ()**

[Week 11 \(\)](#)

[Week 12 \(\)](#)

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- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

6) Most frequent operation on a symbol table is

**1 point**

- [\(A\) Insert](#)
- [\(B\) Delete](#)
- [\(C\) Modify](#)
- [\(D\) Lookup](#)

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

7)

**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)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(D)

8) One symbol table per scope is suited for 1 point

- (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) 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)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

10) To minimize access time, symbol table should be organized as 1 point

- (A) Linear table
- (B) Tree
- (C) Hash Table
- (D) Circular list

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

11) 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)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

12) Activation record stores

*1 point*

- (A) Parameters
- (B) Local variables
- (C) Parameters and local variables
- (D) Parameters, local variables and code for procedures

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

X



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## Course outline

How does an  
NPTEL online  
course work?

()

Week 0 : ()

Week 1 ()

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# Week 10 : Assignment 10

The due date for submitting this assignment has passed.

Due on 2022-04-06, 23:59 IST.

As per our records you have not submitted this assignment.

1) 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

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

2)

1 point

A program has three procedures in it. The procedures may be called from the main program. A procedure may call others also in a nested fashion, but no recursion is present. If the activation records are created statically, number of activation records to be created is

- a. 3
- b. 4
- c. 9
- d. None of the other options

<b>Week 10 ()</b>	<input type="radio"/> a <input type="radio"/> b <input type="radio"/> c <input type="radio"/> d	No, the answer is incorrect. Score: 0	
○ Lecture 47 : Runtime Environment (unit? unit=90&lesson =91)	Accepted Answers: a	3) Frame pointer points to the a. Current activation record b. Parent activation record c. Child activation record d. None of the other options	<b>1 point</b>
○ Lecture 48 : Runtime Environment (Contd.) (unit? unit=90&lesson =92)			
○ Lecture 49 : Runtime Environment (Contd.) (unit? unit=90&lesson =93)	<input type="radio"/> a <input type="radio"/> b <input type="radio"/> c <input type="radio"/> d	No, the answer is incorrect. Score: 0	
○ Lecture 50 : Intermediate Code Generation (unit? unit=90&lesson =94)	Accepted Answers: a	4) Control link points to the a. Parent activation record b. Current activation record c. Child activation record d. None of the other options	<b>1 point</b>
○ Lecture 51 : Intermediate Code Generation (Contd.) (unit? unit=90&lesson =95)	<input type="radio"/> a <input type="radio"/> b <input type="radio"/> c <input type="radio"/> d	No, the answer is incorrect. Score: 0	
○ Lecture Material (unit? unit=90&lesson =96)			
○ Quiz: Week 10 : Assignment 10 (assessment? name=158)	Accepted Answers: a	5)	<b>1 point</b>
○ Feedback Form (unit? unit=90&lesson =97)			

Assignment 10  
Solution (unit?  
unit=90&lesson  
=163)

**Week 11 ()**

**Week 12 ()**

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Transcripts ()**

**Books ()**

Which of the following is NOT possible to realize if activation record is static

- a. Passing parameters
- b. Supporting recursion
- c. Creating local variables
- d. None of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

*b*

6) “Display” helps to locate easily

**1 point**

- a. Global variables
- b. Non-local variables
- c. Local variables
- d. All of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

*b*

7) Intermediate code generation for a compiler is

**1 point**

- a. Must
- b. Optional
- c. Depends on language
- d. None of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

*b*

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

**1 point**

- a. Depends on language.
- b. May not be supported in the intermediate language
- c. Must also be supported in the intermediate language
- d. None of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

9) 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

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

10) P-code is used for

**1 point**

- a. Accumulator based machine
- b. Stack-based machine
- c. Two operand addresses
- d. None of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

11)

**1 point**

For three address code generation of “B B1 and M B2”, the code fragment corresponding nonterminal M

- a. Is an empty string
- b. Contains only Boolean operators
- c. Contains only operands
- d. None of the other options

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

12)

**1 point**

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

- a. Negative
- b. Positive
- c. May be positive or negative
- d. Cannot be accessed

a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

X



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How does an  
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( )

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# Week 11 : Assignment 11

The due date for submitting this assignment has passed.

Due on 2022-04-13, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

For the rule  $B \rightarrow B1 \text{ and } B2$ , the operation "B1.false = B.false" requires two passes as

- a. B1.false is not known
- b. B.false is not known
- c. Both B1.false and B.false are unknown
- d. None of the other options

a

b

c

d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

2)

1 point

For three address code generation of rule " $S \rightarrow \text{while } M1 \text{ B do } M2 \text{ S1}$ ", B.falselist is backpatched with

- a. M1.quad
- b. M2.quad
- c. Cannot be backpatched at this point
- d. None of the other options

**Week 10 ()**

- a
- b
- c
- d

**Week 11 ()**

○ Lecture 52 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=98&lesson  
=99)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

c

3)

**1 point**

In the rule  $B \rightarrow B1$  or  $MB2$ , the nonterminal M is used to remember the start address of

- a. B
- b. B1
- c. Both B1 and B
- d. None of the other options

- a
- b
- c
- d

○ Lecture 53 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=98&lesson  
=100)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

d

○ Lecture 54 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=98&lesson  
=101)

○ Lecture 55 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=98&lesson  
=102)

4) In three-address code, arrays are

**1 point**

- a. Not supported
- b. One dimensional
- c. More than one dimensional
- d. Supported via pointers

- a
- b
- c
- d

○ Lecture 56 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=98&lesson  
=103)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

b

○ Lecture  
Material (unit?  
unit=98&lesson  
=104)

5)

**1 point**

○ Quiz: Week 11  
: Assignment  
11  
(assessment?  
name=162)

Feedback Form  
(unit?  
unit=98&lesson  
=105)

Assignment 11  
Solution (unit?  
unit=98&lesson  
=126)

## Week 12 ()

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### Books ()

In the rule  $S \rightarrow \text{if } B \text{ then } M \ S \ N \ \text{else } M \ S \ N$  is used to generate a jump after

- a. then-part
- b. else-part
- c. both then- and else-part
- d. None of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

6) 1 point

For Boolean variable B, B.truelist contains

- a. List of locations at which B is true
- b. List of locations to jump to if B is true
- c. List of locations at which B is true and the locations to branch to
- d. None of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

7) For the rule  $S \rightarrow L := E$ , if L is a single variable, L.place is equal to 1 point

- a. Null
- b. Some value
- c. Constant
- d. None of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

8) In the rule  $S \rightarrow \text{if } B \text{ then } M \ S1, M$  holds the start address for

1 point

- a. S1
- b. S
- c. B
- d. None of the other options

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

9)

1 point

When code is generated for "a < b and c > d", the locations left for backpatching are

- a. falselist of a < b
- b. falselist of a < b and falselist of c > d
- c. falselist of a < b, falselist of c < d, truelist of c < d
- d. truelist of a < b, falselist of a < b, truelist of c < d, falselist of c < d

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

10)

1 point

For three address code generation of " $B \rightarrow B1 \text{ or } M \ B2$ ", M.quad is used to backpatch

- (A) B1.truelist
- (B) B1.falsestlist
- (C) B2.truelist
- (D) B2.falsestlist

- (A)
- (B)
- (C)

(D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

11)

**1 point**

For three address code generation of rule “ $S \rightarrow \text{while } M1\ B \text{ do } M2\ S1$ ”, nonterminal  $M2$  is used to note

- (A) Loopback address
- (B) Backpatch B.truelist
- (C) Backpatch B.falselist
- (D) None of the other options

(A)

(B)

(C)

(D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)

X



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Course outline

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( )

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Week 9 ( )

## Week 12 : Assignment 12

The due date for submitting this assignment has passed.

Due on 2022-04-20, 23:59 IST.

As per our records you have not submitted this assignment.

1)

1 point

For pair of goto based storage allocation for functions, the second goto statement transfers control to the beginning of

- (A) Storage space
- (B) Program
- (C) Function code
- (D) None of the other options

(A)

(B)

(C)

(D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(C)

2) For a switch statement implemented as a jumptable, default\_case is 1 point

- (A) Not a part of jumptable
- (B) A part of jumptable
- (C) in the middle of the jumptable
- (D) at the beginning of the jumptable

(A)

**Week 10 ()**

- (B)
- (C)
- (D)

**Week 11 ()**

**Week 12 ()**

○ Lecture 57 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=106&lesso  
n=107)

No, the answer is incorrect.

Score: 0

Accepted Answers:

- (A)

3) If case values are widely spaced, it is better to use

**1 point**

- (A) Table search
- (B) Jump table
- (C) Either jump table or simple table
- (D) None of the other options

○ Lecture 58 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=106&lesso  
n=108)

- (A)
- (B)
- (C)
- (D)

○ Lecture 59 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=106&lesso  
n=109)

No, the answer is incorrect.

Score: 0

Accepted Answers:

- (A)

4) Local storage is created by

**1 point**

- (A) Caller
- (B) Callee
- (C) Both Caller and Callee
- (D) None of the other options

○ Lecture 60 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=106&lesso  
n=110)

- (A)
- (B)
- (C)
- (D)

○ Lecture 61 :  
Intermediate  
Code  
Generation  
(Contd.) (unit?  
unit=106&lesso  
n=111)

No, the answer is incorrect.

Score: 0

Accepted Answers:

- (B)

○ Lecture  
Material (unit?  
unit=106&lesso  
n=112)

5)

**1 point**

For a switch statement, the expression can result into values in the range -5 to +6. Number of entries in the jumptable should be

- (A) 5
- (B) 6
- (C) 11
- (D) 12

○ Quiz: Week 12  
: Assignment  
12

(assessment?  
name=165)

Feedback Form  
(unit?  
unit=106&lesso  
n=113)

Assignment 12  
Solution (unit?  
unit=106&lesso  
n=127)

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**Transcripts ()**

**Books ()**

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(D)

6) Register saving is done by

**1 point**

- (A) Callee**
- (B) Caller**
- (C) Both Caller and Callee**
- (D) None of the other options**

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(A)

7) Function call actions are divided into sequences

**1 point**

- (A) Calling and composition**
- (B) Calling and return**
- (C) Return and composition**
- (D) None of the other options**

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(B)

8) Evaluation of actual parameters is done by 1 point

- (A) Caller
- (B) Callee
- (C) Both Caller and Callee
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

9) Jump table is suitable for 1 point

- (A) Large number of cases
- (B) Any number of cases
- (C) Small number of cases
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(A)

10) Backpatching is needed to generate intermediate code using 1 point

- (A) Two passes
- (B) Single pass
- (C) Multiple passes
- (D) None of the other options

- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(B)