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**NORTH AMERICAN
UNIVERSITY**
INSPIRATION INNOVATION GLOBAL COMPETENCE



Islam Kamilov



Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 16 January
- 22 January > Homework 1

Started on Thursday, 19 January 2017, 2:56 PM**State** Finished**Completed on** Thursday, 19 January 2017, 3:06 PM**Time taken** 10 mins 1 sec**Marks** 3.00/5.00**Grade** 60.00 out of 100.00**Question 1**

Correct

Mark 1.00 out of 1.00

JIT (Just-in-Time) compilers are widely used for Java programs.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 2

Incorrect

Mark 0.00 out of 1.00

Which language used orthogonality as a primary design criterion?

Select one:

- ☐ a. JAVA
- ☐ b. FORTRAN
- ☐ c. ALGOL
- ☒ d. LISP ✖
- ☐ e. Python

Your answer is incorrect.

The correct answer is: ALGOL

Question 3

Correct

Mark 1.00 out of 1.00

What is the legendary programming language that is especially used for business purposes?

Select one:

- ☐ a. AWK
- ☐ b. Algol
- ☐ c. Pascal
- ☐ d. Fortran
- ☒ e. Cobol ✓

Your answer is correct.

The correct answer is: Cobol

Question 4

Correct

Mark 1.00 out of 1.00

What is the legendary programming language that is especially used for AI?

Select one:

- ☐ a. Pascal
- ☐ b. AWK
- ☐ c. Fortran
- ☒ d. Lisp ✓
- ☐ e. Algol

Your answer is correct.

The correct answer is: Lisp

Question 5

Incorrect

Mark 0.00 out of 1.00

Which one of the following is not a criterion for a programming language evaluation?

Select one:


- ☒ a. Reliability ✖
- ☐ b. Age
- ☐ c. Cost
- ☐ d. Readability
- ☐ e. Writability

Your answer is incorrect.

The correct answer is: Age

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Islam Kamilov ▾



Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 16 January
- 22 January > Homework 1

Started on	Thursday, 19 January 2017, 3:07 PM
State	Finished
Completed on	Thursday, 19 January 2017, 3:15 PM
Time taken	7 mins 34 secs
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Please match the steps for Hybrid Implementation process.

- Step 3 ✓
- Step 1 ✓
- Step 5 ✓
- Step 4 ✓
- Step 6 ✓
- Step 2 ✓

Your answer is correct.

The correct answer is: Step 3 → Syntax Analyzer, Step 1 → Source Program, Step 5 → Interpreter, Step 4 → Intermediate Code Generator, Step 6 → Result, Step 2 → Lexical Analyzer

Question 2

Correct

Mark 1.00 out of 1.00

What is the legendary programming language that is especially used for scientific calculations?

Select one:

- ☐ a. Scitran
- ☒ b. Fortran ✓
- ☐ c. Cobol
- ☐ d. Algol
- ☐ e. AWK

Your answer is correct.

The correct answer is: Fortran

Question 3

Correct

Mark 1.00 out of 1.00

Why should we study programming languages?

Select one:

- ☒ a. All of them ✓
- ☐ b. To be able to select languages more effectively
- ☐ c. To increase our capacity to use different constructs
- ☐ d. To be able to learn new languages more efficiently

Your answer is correct.

The correct answer is: All of them

Question 4

Correct

Mark 1.00 out of 1.00

In what language is most of UNIX written?

Select one:

- ☐ a. Java
- ☐ b. C++
- ☐ c. Cobol
- ☐ d. Python
- ☒ e. C ✓

Your answer is correct.

The correct answer is: C

Question 5

Correct

Mark 1.00 out of 1.00

JIT (Just-in-Time) compilers are widely used for Java programs.


Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 23 January
- 29 January > Homework 2

Started on	Thursday, 26 January 2017, 12:03 PM
State	Finished
Completed on	Thursday, 26 January 2017, 12:09 PM
Time taken	6 mins 39 secs
Marks	1.00/5.00
Grade	20.00 out of 100.00

Question 1

Incorrect


Mark 0.00 out of 1.00

If ($a > b$)

print "Yes"

This logic had been implemented in which programming language first?
(conditional branching)

Select one:

- ☒ a. Fortran 
- ☐ b. C
- ☐ c. Speedcoding
- ☐ d. ALGOL
- ☐ e. APL

The correct answer is: Speedcoding


Question 2

Correct

Mark 1.00 out of 1.00

What is the first AI language?

Select one:

- ☐ a. JAVA
- ☐ b. PYTHON
- ☒ c. LISP 
- ☐ d. FORTRAN

The correct answer is: LISP

Question 3

Incorrect

Mark 0.00 out of 1.00

Why source code usage was developed instead of using object/machine code?

Select one:

- ☐ a. Machine code was hard to modify
- ☐ b. All of them
- ☒ c. Machine code has no indexing ✖
- ☐ d. Machine code has poor readability

The correct answer is: All of them

Question 4

Incorrect

Mark 0.00 out of 1.00

_____ first used in Fortran IV.

Select one:

- ☒ a. All ✖
- ☐ b. Arrays
- ☐ c. Explicit data type declarations
- ☐ d. Pointers

The correct answer is: Explicit data type declarations

Question 5

Incorrect

Mark 0.00 out of 1.00

Which one is not correct about Zuse's Plankalkul?


Select one:

- ☐ a. Implemented in 1972
- ☒ b. Designed in 1945 ✖
- ☐ c. Has invariants
- ☐ d. Has advanced data structures

The correct answer is: Implemented in 1972

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 23 January
- 29 January > Homework 2

Started on	Thursday, 26 January 2017, 12:45 PM
State	Finished
Completed on	Thursday, 26 January 2017, 12:55 PM
Time taken	10 mins 4 secs
Marks	3.00/5.00
Grade	60.00 out of 100.00

Question 1

Incorrect

Mark 0.00 out of 1.00

```
If ( a > b )  
    print "Yes"  
else  
    print "No"
```

This logic had been implemented in which programming language first?

Select one:

- ☐ a. Speedcoding
- ☒ b. ALGOL ✗
- ☐ c. Fortran
- ☐ d. C
- ☐ e. APL

The correct answer is: Fortran

Question 2

Correct

Mark 1.00 out of 1.00

What is the first Programming Language?

Select one:

- ☒ a. Zuse's Plankalkul ✓
- ☐ b. APL
- ☐ c. Fortran I
- ☐ d. Algol 58

The correct answer is: Zuse's Plankalkul

Question 3

Correct

Mark 1.00 out of 1.00

Which programming language was designed for IBM 704 machine that takes advantage of the floating point hardware calculations instead of software calculations.

Select one:

- ☐ a. Smalltalk
- ☐ b. Java
- ☐ c. Algol
- ☒ d. Fortran ✓
- ☐ e. C

The correct answer is: Fortran

Question 4

Incorrect


Mark 0.00 out of 1.00

If ($a > b$)

print "Yes"

This logic had been implemented in which programming language first?
(conditional branching)

Select one:

- ☐ a. Fortran
- ☐ b. Speedcoding
- ☐ c. APL
- ☒ d. ALGOL 
- ☐ e. C

The correct answer is: Speedcoding


Question 5

Correct

Mark 1.00 out of 1.00

Why source code usage was developed instead of using object/machine code?

Select one:

- ☐ a. Machine code has no indexing
- ☐ b. Machine code has poor readability
- ☒ c. All of them 
- ☐ d. Machine code was hard to modify

The correct answer is: All of them



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Ravshanbek Norboev ▾



Dashboard > COMP > COMP 3320.Programming Languages.2016FLL.s1 > 12 September - 18 September > Homework 4

Started on Wednesday, 21 September 2016, 11:30 AM

State Finished

Completed on Wednesday, 21 September 2016, 11:38 AM

Time taken 7 mins 57 secs

Marks 4.00/7.00

Grade 57.14 out of 100.00

Question 1

Correct Mark 1.00 out of 1.00

What is the lowest level syntactic unit?

Select one:

- ☐ a. BNF
- ☒ b. lexeme ✓
- ☐ c. grammar
- ☐ d. EBNF

Your answer is correct.

The correct answer is: lexeme

Question 2

Incorrect

Mark 0.00 out of 1.00

In the following grammar we can say that:

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☐ a. * has precedence over +
- ☐ b. + and * have same precedence
- ☐ c. we cannot say anything about their precedence
- ☒ d. + has precedence over * ❌

Your answer is incorrect.

The correct answer is: * has precedence over +

Question 3


Incorrect

Mark 0.00 out of 1.00

The following grammar is ambiguous:

$$\langle S \rangle \rightarrow \langle A \rangle$$
$$\langle A \rangle \rightarrow \langle A \rangle + \langle A \rangle \mid \langle \text{id} \rangle$$
$$\langle \text{id} \rangle \rightarrow a \mid b \mid c$$

Select one:

- ☐ True
- ☒ False 

The correct answer is 'True'.


Question 4

Correct

Mark 1.00 out of 1.00

A grammar that generates a sentential form for which there are two or more distinct parse trees is said to be _____.

Select one:

- ☐ a. unambiguous
- ☒ b. ambiguous 
- ☐ c. flexible
- ☐ d. readable

Your answer is correct.

The correct answer is: ambiguous


Question 5

Incorrect

Mark 0.00 out of 1.00

A metalanguage is a language that is used to describe another language. BNF is a metalanguage for programming languages.

Select one:

- ☐ True
- ☒ False 

The correct answer is 'True'.


Question 6

Correct

Mark 1.00 out of 1.00

What is the legendary programming language that is especially used for business purposes?

Select one:

- ☐ a. Algol
- ☐ b. Pascal
- ☐ c. AWK
- ☐ d. Fortran
- ☒ e. Cobol 

Your answer is correct.

The correct answer is: Cobol

Question 7

Correct

Mark 1.00 out of 1.00

In what language is most of UNIX written?

Select one:


- ☒ a. C ✓
- ☐ b. Cobol
- ☐ c. C++
- ☐ d. Java
- ☐ e. Python

Your answer is correct.

The correct answer is: C

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Islam Kamilov ▾



Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 6 February
- 12 February > Homework 4

Started on	Monday, 6 February 2017, 3:00 PM
State	Finished
Completed on	Monday, 6 February 2017, 3:10 PM
Time taken	10 mins
Marks	6.50/7.00
Grade	92.86 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

The following grammar cannot produce?

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☒ a. $A = (A+B) * 3$ ✓
- ☐ b. $C = (A + (C + C)) * C$
- ☐ c. $A = (A+B) * C$
- ☐ d. $A = (B+B) * C$

Your answer is correct.

The correct answer is: $A = (A+B) * 3$

Question 2

Correct

Mark 1.00 out of 1.00

A metalanguage is a language that is used to describe another language. BNF is a metalanguage for programming languages.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 3

Correct

Mark 1.00 out of 1.00

In the following grammar we can say that:

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☒ a. * has precedence over + ✓
- ☐ b. we cannot say anything about their precedence
- ☐ c. + and * have same precedence
- ☐ d. + has precedence over *

Your answer is correct.

The correct answer is: * has precedence over +

Question 4

Correct

Mark 1.00 out of 1.00

A grammar that generates a sentential form for which there are two or more distinct parse trees is said to be _____.

Select one:

- ☐ a. unambiguous
- ☒ b. ambiguous ✓
- ☐ c. flexible
- ☐ d. readable

Your answer is correct.

The correct answer is: ambiguous

Question 5

Correct

Mark 1.00 out of 1.00

Operator precedence can be achieved in _____ grammars.

Select one:

- ☐ a. token
- ☐ b. ambiguous
- ☐ c. BNF
- ☒ d. non-ambiguous ✓

Your answer is correct.

The correct answer is: non-ambiguous

Question 6

Correct

Mark 1.00 out of 1.00

Why should we study programming languages?

Select one:

- ☐ a. To be able to learn new languages more efficiently
- ☐ b. To be able to select languages more effectively
- ☐ c. To increase our capacity to use different constructs
- ☒ d. All of them ✓

Your answer is correct.

The correct answer is: All of them

Question 7

Partially correct

Mark 0.50 out of 1.00

Please match the steps for Hybrid Implementation process.

- Step 3 ✓
- Step 5 ✗
- Step 2 ✗
- Step 4 ✓
- Step 1 ✗
- Step 6 ✓


Your answer is partially correct.

You have correctly selected 3.

The correct answer is: Step 3 → Syntax Analyzer, Step 5 → Interpreter, Step 2 → Lexical Analyzer, Step 4 → Intermediate Code Generator, Step 1 → Source Program, Step 6 → Result

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 6 February
- 12 February > Homework 4

Started on	Monday, 6 February 2017, 2:53 PM
State	Finished
Completed on	Monday, 6 February 2017, 3:00 PM
Time taken	7 mins 22 secs
Marks	6.00/7.00
Grade	85.71 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

A grammar that generates a sentential form for which there are two or more distinct parse trees is said to be _____.

Select one:

- ☒ a. ambiguous ✓
- ☐ b. readable
- ☐ c. flexible
- ☐ d. unambiguous

Your answer is correct.

The correct answer is: ambiguous

Question 2

Correct

Mark 1.00 out of 1.00

The following grammar is ambiguous:

$$\langle S \rangle \rightarrow \langle A \rangle$$
$$\langle A \rangle \rightarrow \langle A \rangle + \langle A \rangle \mid \langle \text{id} \rangle$$
$$\langle \text{id} \rangle \rightarrow a \mid b \mid c$$

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 3

Correct

Mark 1.00 out of 1.00

The sentences of the language are generated through a sequence of applications of the rules, beginning with a special nonterminal of the grammar called the start symbol. This sequence of rule applications is called a derivation.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

What is the lowest level syntactic unit?

Select one:

- ☐ a. grammar
- ☐ b. BNF
- ☐ c. EBNF
- ☒ d. lexeme ✓

Your answer is correct.

The correct answer is: lexeme

Question 5

Correct

Mark 1.00 out of 1.00

Operator precedence can be achieved in _____ grammars.

Select one:

- ☒ a. non-ambiguous ✓
- ☐ b. token
- ☐ c. BNF
- ☐ d. ambiguous

Your answer is correct.

The correct answer is: non-ambiguous

Question 6

Incorrect

Mark 0.00 out of 1.00

JIT (Just-in-Time) compilers are widely used for Java programs.

Select one:

- ☐ True
- ☒ False ✗

The correct answer is 'True'.

Question 7

Correct

Mark 1.00 out of 1.00

Which language used orthogonality as a primary design criterion?

Select one:

- ☐ a. JAVA
- ☐ b. LISP
- ☐ c. FORTRAN
- ☒ d. ALGOL ✓
- ☐ e. Python

Your answer is correct.

The correct answer is: ALGOL

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 30 January
- 5 February > Homework 3

Started on Monday, 30 January 2017, 2:03 PM**State** Finished**Completed on** Monday, 30 January 2017, 2:08 PM**Time taken** 4 mins 45 secs**Marks** 5.00/5.00**Grade** **100.00** out of 100.00**Question 1**

Correct

Mark 1.00 out of 1.00

Which one is the pure object oriented programming language?

Select one:

- ☐ a. Ada
- ☐ b. Algol
- ☐ c. Basic
- ☒ d. Smalltalk ✓
- ☐ e. Snobol

The correct answer is: Smalltalk

Question 2

Correct

Mark 1.00 out of 1.00

_____ designed for teaching structured programming.

Select one:

- ☐ a. Snobol
- ☒ b. Pascal ✓
- ☐ c. Fortran
- ☐ d. C
- ☐ e. Ada

The correct answer is: Pascal

Question 3

Correct

Mark 1.00 out of 1.00

_____ is non-procedural and based on formal logic.

Select one:

- ☐ a. Algol
- ☐ b. C
- ☐ c. Ada
- ☐ d. Lisp
- ☒ e. Prolog ✓

The correct answer is: Prolog

Question 4

Correct

Mark 1.00 out of 1.00

What are the common characteristics of APL and SNOBOL?

Select one:

- ☐ a. Static typing and static storage
- ☒ b. Dynamic typing and dynamic storage ✓
- ☐ c. Orthogonal Design
- ☐ d. Object oriented

The correct answer is: Dynamic typing and dynamic storage

Question 5

Correct

Mark 1.00 out of 1.00

Which language had the following contributions specifically?

- Packages
- Generic program units
- Concurrency


Select one:

- ☐ a. Algol
- ☐ b. Java
- ☐ c. C
- ☒ d. Ada ✓
- ☐ e. Fortran

The correct answer is: Ada

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 6 February
- 12 February > Homework 4

Started on	Monday, 6 February 2017, 3:00 PM
State	Finished
Completed on	Monday, 6 February 2017, 3:10 PM
Time taken	10 mins
Marks	6.50/7.00
Grade	92.86 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

The following grammar cannot produce?

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☒ a. $A = (A+B) * 3$ ✓
- ☐ b. $C = (A + (C + C)) * C$
- ☐ c. $A = (A+B) * C$
- ☐ d. $A = (B+B) * C$

Your answer is correct.

The correct answer is: $A = (A+B) * 3$

Question 2

Correct

Mark 1.00 out of 1.00

A metalanguage is a language that is used to describe another language. BNF is a metalanguage for programming languages.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 3

Correct

Mark 1.00 out of 1.00

In the following grammar we can say that:

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☒ a. * has precedence over + ✓
- ☐ b. we cannot say anything about their precedence
- ☐ c. + and * have same precedence
- ☐ d. + has precedence over *

Your answer is correct.

The correct answer is: * has precedence over +

Question 4

Correct

Mark 1.00 out of 1.00

A grammar that generates a sentential form for which there are two or more distinct parse trees is said to be _____.

Select one:

- ☐ a. unambiguous
- ☒ b. ambiguous ✓
- ☐ c. flexible
- ☐ d. readable

Your answer is correct.

The correct answer is: ambiguous

Question 5

Correct

Mark 1.00 out of 1.00

Operator precedence can be achieved in _____ grammars.

Select one:

- ☐ a. token
- ☐ b. ambiguous
- ☐ c. BNF
- ☒ d. non-ambiguous ✓

Your answer is correct.

The correct answer is: non-ambiguous

Question 6

Correct

Mark 1.00 out of 1.00

Why should we study programming languages?

Select one:

- ☐ a. To be able to learn new languages more efficiently
- ☐ b. To be able to select languages more effectively
- ☐ c. To increase our capacity to use different constructs
- ☒ d. All of them ✓

Your answer is correct.

The correct answer is: All of them

Question 7

Partially correct

Mark 0.50 out of 1.00

Please match the steps for Hybrid Implementation process.

- Step 3 ✓
- Step 5 ✗
- Step 2 ✗
- Step 4 ✓
- Step 1 ✗
- Step 6 ✓


Your answer is partially correct.

You have correctly selected 3.

The correct answer is: Step 3 → Syntax Analyzer, Step 5 → Interpreter, Step 2 → Lexical Analyzer, Step 4 → Intermediate Code Generator, Step 1 → Source Program, Step 6 → Result

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 6 February
- 12 February > Homework 4

Started on	Monday, 6 February 2017, 3:13 PM
State	Finished
Completed on	Monday, 6 February 2017, 3:16 PM
Time taken	3 mins 36 secs
Marks	7.00/7.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

The following grammar cannot produce?

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☐ a. $A = (A+B) * C$
- ☒ b. $A = (A+B) * 3$ ✓
- ☐ c. $A = (B+B) * C$
- ☐ d. $C = (A + (C + C)) * C$

Your answer is correct.

The correct answer is: $A = (A+B) * 3$

Question 2

Correct

Mark 1.00 out of 1.00

What is the lowest level syntactic unit?

Select one:

- ☐ a. EBNF
- ☒ b. lexeme ✓
- ☐ c. BNF
- ☐ d. grammar

Your answer is correct.

The correct answer is: lexeme

Question 3

Correct

Mark 1.00 out of 1.00

The following grammar is ambiguous:

$$\langle S \rangle \rightarrow \langle A \rangle$$
$$\langle A \rangle \rightarrow \langle A \rangle + \langle A \rangle \mid \langle \text{id} \rangle$$
$$\langle \text{id} \rangle \rightarrow a \mid b \mid c$$

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

A metalanguage is a language that is used to describe another language. BNF is a metalanguage for programming languages.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 5

Correct

Mark 1.00 out of 1.00

In the following grammar we can say that:

$$\langle \text{assign} \rangle \rightarrow \langle \text{id} \rangle = \langle \text{expr} \rangle$$
$$\langle \text{id} \rangle \rightarrow A \mid B \mid C$$
$$\langle \text{expr} \rangle \rightarrow \langle \text{expr} \rangle + \langle \text{term} \rangle$$
$$\mid \langle \text{term} \rangle$$
$$\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$$
$$\mid \langle \text{factor} \rangle$$
$$\langle \text{factor} \rangle \rightarrow (\langle \text{expr} \rangle)$$
$$\mid \langle \text{id} \rangle$$

Select one:

- ☒ a. * has precedence over + ✓
- ☐ b. we cannot say anything about their precedence
- ☐ c. + has precedence over *
- ☐ d. + and * have same precedence

Your answer is correct.

The correct answer is: * has precedence over +

Question 6

Correct

Mark 1.00 out of 1.00

What is the legendary programming language that is especially used for scientific calculations?

Select one:

- ☐ a. Algol
- ☒ b. Fortran ✓
- ☐ c. AWK
- ☐ d. Scitran
- ☐ e. Cobol

Your answer is correct.

The correct answer is: Fortran

Question 7

Correct

Mark 1.00 out of 1.00

What is the legendary programming language that is especially used for AI?

Select one:

- ☐ a. AWK
- ☐ b. Fortran
- ☐ c. Pascal
- ☐ d. Algol
- ☒ e. Lisp ✓

Your answer is correct.

The correct answer is: Lisp

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 13
February - 19 February > Homework 5

Started on	Monday, 13 February 2017, 2:47 PM
State	Finished
Completed on	Monday, 13 February 2017, 2:53 PM
Time taken	5 mins 31 secs
Marks	4.00/5.00
Grade	80.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

The static semantics of a language deals with the syntax rather than semantics.

Select one:

- ☒ True ✓
- ☐ False

True

The correct answer is 'True'.

Question 2

Correct

Mark 1.00 out of 1.00

Type compatibility can be checked in context-free grammars.

Select one:

- ☐ True
- ☒ False ✓

Attribute grammar can check type compatibility.

The correct answer is 'False'.

Question 3

Correct

Mark 1.00 out of 1.00

For which one of the following we do not need attribute grammars?

Select one:

- ☐ a. To find intrinsic attributes
- ☐ b. To find synthesized attributes
- ☒ c. To check ambiguity ✓
- ☐ d. To find inherited attributes

Your answer is correct.

The correct answer is: To check ambiguity

Question 4

Correct

Mark 1.00 out of 1.00

What does the following attribute grammar mean:

Syntax rule: `<fun_def> → function <fun_name>[1]`

`<fun_body> end <fun_name>[2];`

Predicate: `<fun_name>[1].string == <fun_name>[2].string`

Select one:

- ☐ a. Functions should have two variables
- ☐ b. Functions cannot be defined without variables
- ☐ c. Syntax rule should come before predicate rule when writing in that programming language
- ☒ d. The name on the end of a function must match the functions name ✓

Your answer is correct.

The correct answer is: The name on the end of a function must match the functions name


Question 5

Incorrect

Mark 0.00 out of 1.00

A(n) _____ is a device used to describe more of the structure of a programming language than can be described with a context-free- grammar.

Select one:

- ☐ a. static semantics
- ☒ b. Extended BNF 
- ☐ c. recognizer
- ☐ d. attribute grammar

Your answer is incorrect.

The correct answer is: attribute grammar

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 13
February - 19 February > Homework 5

Started on Monday, 13 February 2017, 2:54 PM**State** Finished**Completed on** Monday, 13 February 2017, 2:58 PM**Time taken** 4 mins 38 secs**Marks** 5.00/5.00**Grade** 100.00 out of 100.00**Question 1**

Correct

Mark 1.00 out of 1.00

Dynamic semantics deals with the meaning of expressions, statements, and program units.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 2

Correct

Mark 1.00 out of 1.00

Operational semantics deals with the effects of running a program on a machine.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 3

Correct

Mark 1.00 out of 1.00

For which one of the following we do not need attribute grammars?

Select one:

- ☐ a. To find inherited attributes
- ☐ b. To find intrinsic attributes
- ☐ c. To find synthesized attributes
- ☒ d. To check ambiguity ✓

Your answer is correct.

The correct answer is: To check ambiguity

Question 4

Correct

Mark 1.00 out of 1.00

The static semantics of a language deals with the syntax rather than semantics.

Select one:

- ☒ True ✓
- ☐ False

True

The correct answer is 'True'.

Question 5

Correct

Mark 1.00 out of 1.00

What does the following attribute grammar mean:

Syntax rule: `<fun_def> → function <fun_name>[1]`

`<fun_body> end <fun_name>[2];`

Predicate: `<fun_name>[1].string == <fun_name>[2].string`

Select one:


- ☒ a. The name on the end of a function must match the functions name ✓
- ☐ b. Functions should have two variables
- ☐ c. Syntax rule should come before predicate rule when writing in that programming language
- ☐ d. Functions cannot be defined without variables

Your answer is correct.

The correct answer is: The name on the end of a function must match the functions name

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[February - 19 February](#) > [Homework 5](#)

Started on	Monday, 13 February 2017, 2:59 PM
State	Finished
Completed on	Monday, 13 February 2017, 3:01 PM
Time taken	2 mins 23 secs
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

A(n) _____ is a device used to describe more of the structure of a programming language than can be described with a context-free- grammar.

Select one:

- ☒ a. attribute grammar ✓
- ☐ b. recognizer
- ☐ c. static semantics
- ☐ d. Extended BNF

Your answer is correct.

The correct answer is: attribute grammar

Question 2

Correct

Mark 1.00 out of 1.00

Type compatibility can be checked in context-free grammars.

Select one:

- ☐ True
- ☒ False ✓

Attribute grammar can check type compatibility.

The correct answer is 'False'.

Question 3

Correct

Mark 1.00 out of 1.00

Operational semantics deals with the effects of running a program on a machine.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

Dynamic semantics deals with the meaning of expressions, statements, and program units.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 5

Correct

Mark 1.00 out of 1.00

What does the following attribute grammar mean:

Syntax rule: `<fun_def> → function <fun_name>[1]`

`<fun_body> end <fun_name>[2];`

Predicate: `<fun_name>[1].string == <fun_name>[2].string`

Select one:

- ☐ a. Functions should have two variables
- ☐ b. Syntax rule should come before predicate rule when writing in that programming language
- ☒ c. The name on the end of a function must match the functions name ✓
- ☐ d. Functions cannot be defined without variables

Your answer is correct.

The correct answer is: The name on the end of a function must match the functions name

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 20
February - 26 February > Homework 6 (Slides: Ch4 - Part 1)

Started on Wednesday, 22 February 2017, 10:58 PM**State** Finished**Completed on** Wednesday, 22 February 2017, 11:01 PM**Time taken** 3 mins 44 secs**Marks** 4.00/4.00**Grade** 100.00 out of 100.00**Question 1**

Correct

Mark 1.00 out of 1.00

A recursive-descent parser is a coded version of a syntax analyzer based directly on the BNF description of the syntax of language.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 2

Correct

Mark 1.00 out of 1.00

What is the front end of a syntax analyzer?

Select one:

- ☐ a. Semantic Analyzer
- ☐ b. Attribute Grammars
- ☒ c. Lexical analyzer ✓
- ☐ d. Context-free grammars

Your answer is correct.

The correct answer is: Lexical analyzer

Question 3

Correct

Mark 1.00 out of 1.00

Syntax analysis is often called parsing.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

Parsing algorithms that work for any unambiguous grammar are complicated and inefficient. The complexity of those algorithms is _____.

Select one:

- ☐ a. $O(N)$
- ☒ b. $O(N^3)$ ✓
- ☐ c. $O(N^2)$
- ☐ d. $O(\log N)$

Your answer is correct.

The correct answer is: $O(N^3)$

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 20
February - 26 February > Homework 6 (Slides: Ch4 - Part 1)

Started on	Wednesday, 22 February 2017, 11:03 PM
State	Finished
Completed on	Wednesday, 22 February 2017, 11:04 PM
Time taken	1 min 34 secs
Marks	4.00/4.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

A top-down parser builds a parse tree in _____.

Select one:

- ☐ a. postorder
- ☒ b. preorder ✓
- ☐ c. inorder
- ☐ d. no order

Your answer is correct.

The correct answer is: preorder

Question 2

Correct

Mark 1.00 out of 1.00

There are three reasons why lexical analysis is separated from syntax analysis.
Which one of the following is not one of them?

Select one:

- ☐ a. Portability
- ☐ b. Simplicity
- ☒ c. Cost ✓
- ☐ d. Efficiency

Your answer is correct.

The correct answer is: Cost

Question 3

Correct

Mark 1.00 out of 1.00

A lexical analyzer is a pattern matcher.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

What is the front end of a syntax analyzer?

Select one:


- ☐ a. Context-free grammars
- ☒ b. Lexical analyzer ✓
- ☐ c. Semantic Analyzer
- ☐ d. Attribute Grammars

Your answer is correct.

The correct answer is: Lexical analyzer

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Dashboard > My courses > COMP > COMP 3320.Programming Languages.2017SPR.s1 > 20
February - 26 February > Homework 6 (Slides: Ch4 - Part 1)

Started on	Wednesday, 22 February 2017, 11:04 PM
State	Finished
Completed on	Wednesday, 22 February 2017, 11:05 PM
Time taken	27 secs
Marks	4.00/4.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Parsing algorithms that work for any unambiguous grammar are complicated and inefficient. The complexity of those algorithms is _____.

Select one:

- ☐ a. $O(N)$
- ☐ b. $O(\log N)$
- ☐ c. $O(N^2)$
- ☒ d. $O(N^3)$ ✓

Your answer is correct.

The correct answer is: $O(N^3)$

Question 2

Correct

Mark 1.00 out of 1.00

There are three reasons why lexical analysis is separated from syntax analysis. Which one of the following is not one of them?

Select one:

- ☐ a. Simplicity
- ☒ b. Cost ✓
- ☐ c. Portability
- ☐ d. Efficiency

Your answer is correct.

The correct answer is: Cost

Question 3

Correct

Mark 1.00 out of 1.00

A lexical analyzer is a pattern matcher.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 4

Correct

Mark 1.00 out of 1.00

Syntax analysis is often called parsing.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.



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Ravshanbek Norboev ▾



Dashboard > COMP > COMP 3320.Programming Languages.2016FLL.s1 > 3 October - 9 October > Homework 7

Started on Wednesday, 12 October 2016, 11:33 AM

State Finished

Completed on Wednesday, 12 October 2016, 11:40 AM

Time taken 6 mins 39 secs

Marks 2.00/2.00

Grade 100.00 out of 100.00

Question 1 Correct Mark 1.00 out of 1.00

EBNF is ideally suited for recursive-descent parsers.

Select one:

- ☒ True ✓
☐ False

The correct answer is 'True'.

Question 2

Correct

Mark 1.00 out of 1.00

Assume the following non-terminals are given: `<type>`, `<id>`, `<literal>`, `<assign>`, `<expr>`, and `<stmt_list>`.

Which of following cannot be written with this grammar:

`<for> -> for '(' [[<type>] <id> = <expr> {, [<type>] <id> = <expr>}] ; [<expr>] ; [<expr> {, <expr>}] ')' '{' <stmt_list> '}'`

Select one:

- ☐ a. `for (int k = 0, m = 100; k < n; k++, m++)`
`{`
`b = a + 1;`
`}`
- ☐ b. `for (int i = 0; i < n; i++)`
`{`
`a = a + 1;`
`}`
- ☐ c. `for (int i = 0; i < n; i++)`
`{`
`a = a + 1;`
`}`
- ☒ d. `for (i = 0; i < n; i++);`
`{`
`a = a + 1;`
`}` ✓



Your answer is correct.

The correct answer is: `for (i = 0; i < n; i++);`
`{`
`a = a + 1;`
`}`

