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**NORTH AMERICAN
UNIVERSITY**
INSPIRATION INNOVATION GLOBAL COMPETENCE



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

Started on	Saturday, 11 February 2017, 1:18 AM
State	Finished
Completed on	Saturday, 11 February 2017, 1:22 AM
Time taken	4 mins 50 secs
Marks	5.00/7.00
Grade	71.43 out of 100.00

Question 1

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

Your answer is correct.

The correct answer is: * has precedence over +

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

Incorrect

Mark 0.00 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. $A = (A+B) * C$
- ☐ c. $A = (B+B) * C$
- ☒ d. $C = (A + (C + C)) * C$ ✖

Your answer is incorrect.

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

Question 4

Correct

Mark 1.00 out of 1.00

What is the lowest level syntactic unit?

Select one:

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

Your answer is correct.

The correct answer is: non-ambiguous

Question 6

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

Your answer is correct.

The correct answer is: Lisp


Question 7

Incorrect

Mark 0.00 out of 1.00

Which language used orthogonality as a primary design criterion?

Select one:

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

Your answer is incorrect.

The correct answer is: ALGOL