## УПРОЩЕННАЯ ЛЕКСИКА ЯЗЫКА С (ISO/IEC 9899:1999 (E))

## **Lexical elements Syntax** token: keyword identifier constantstring-literal punctuator Keywords **Syntax** auto break case char const continue default do double else enum extern float for goto if inline int long register restrict return short signed sizeof static struct switch typedef union unsigned void volatile while Bool Complex Imaginary **Identifiers**

# **Syntax**

identifier:

nondigit

```
identifier digit
  identifier nondigit:
nondigit: one of
  _ a b c d e f g h i j k l m
  n o p q r s t u v w x y z
A B C D E F G H I J K L M
```

digit: one of

0 1 2 3 4 5 6 7 8 9

NOPQRSTUVWXYZ

#### **Constants**

#### **Syntax**

constant:

integer-constant floating-constant enumeration-constant character-constant

## Integer constants Syntax

integer-constant:

decimal-constant

octal-constant

hexadecimal-constant

decimal-constant:

nonzero-digit

decimal-constant digit

octal-constant:

0

octal-constant octal-digit

hexadecimal-constant:

hexadecimal-prefix hexadecimal-digit hexadecimal-constant hexadecimal-digit

hexadecimal-prefix: one of

0x 0X

nonzero-digit: one of

1 2 3 4 5 6 7 8 9

octal-digit: one of

0 1 2 3 4 5 6 7

hexadecimal-digit: one of

0 1 2 3 4 5 6 7 8 9

abcdef ABCDEF

## Floating constants

### **Syntax**

floating-constant:

fractional-constant exponent-partopt digit-sequence exponent-part

fractional-constant:

 ${\it digit-sequence} opt. \ {\it digit-sequence}$ 

digit-sequence.

exponent-part:

e signopt digit-sequence

E signopt digit-sequence

```
sign: one of

+ -

digit-sequence:

digit

digit-sequence digit
```

#### **Character constants**

```
Syntax
```

```
character-constant:
    'c-char-sequence'

c-char-sequence:
    c-char
    c-char-sequence c-char

c-char:
    any member of the source character set except the single-quote ', backslash \, or
new-line character
    escape-sequence
escape-sequence:
    one of \' \" \? \\ \a \b \f \n \r \t \v
```

## **String literals**

**Syntax** 

```
string-literal:
    "s-char-sequenceopt"

s-char-sequence:
    s-char
    s-char-sequence s-char

s-char-sequence s-char

s-char:
    any member of the source character set except the double-quote ", backslash \, or new-line character
    escape-sequence
```

## **Punctuators**

**Syntax** 

```
punctuator:
```

```
one of [ ] ( ) { } . ->
++ -- & * + - ~ !
/ % << >> < > <= >= != ^ | && ||
? : ; ...
= *= /= %= += -= <<= >>= &= ^= |=
, # ##
```