Regular Expressions (Python notation):-

1) The set of all alphabetic strings

Answer:

[A-Za-z]+

2) The set of all alphabetic words

Answer:

([A-Za-z]+)\\b

3) The set of all lower case alphabetic strings ending in a b

Answer:

[a-z]*b

4) the set of all lower case alphabetic words ending in a b

Answer:

[a-z]*b\\b

5) The set of all strings from the alphabet {"a", "b"} such that each "a" is immediately preceded by and immediately followed by at least one "b"

Answer:

b+ab+

6) The set of all words from the alphabet {"a", "b"} such that each "a" is immediately preceded by and immediately followed by at least one "b".

Answer:

b+ab+\\b

7) The set of all strings from the alphabet {"a", "b"} that form the pattern an bm where (n+m) is even; n>=0 and m>=0

Answer:

(aa)*(bb)* | (a(aa)*b(bb)*)

Answer 2:

Regex:

[01-12]/[01-31]/([1900-2000]|[00-99]) | ([00-99]|[1900-2000])/[01-31]/[01-12] | [01-31]/[00-99]/([1900-2000]|[00-99])

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