27 Lecture - CS402

Important Mcqs

1. What is the Pumping Lemma Version II used for?

a) To prove that a language is regular

b) To prove that a language is context-free

c) To prove that a language is not context-free

d) None of the above

Answer: b

What is the pumping length for the Pumping Lemma Version II?

a) The length of the shortest string in the language

b) The length of the longest string in the language

c) The length of the middle segment of a string in the language

d) The length of the prefix of a string in the language

Answer: a

How many parts does a string need to be divided into for the Pumping Lemma Version II?

a) Two

- b) Three
- c) Four

d) Five

Answer: d

What is the minimum length of the middle segment in the Pumping Lemma Version II?

a) p

b) 1

c) 0

d) It depends on the language

Answer: c

Can the Pumping Lemma Version II be used to prove that a language is regular?

a) Yes b) No <mark>Answer: b</mark>

What is the condition for the middle segment in the Pumping Lemma Version II?

a) Its length must be greater than or equal to p

b) Its length must be less than or equal to p

c) Its length can be any value

d) It depends on the language

<mark>Answer: b</mark>

What is the condition for the last segment in the Pumping Lemma Version II?

a) Its length must be greater than or equal to p

b) Its length must be less than or equal to p

c) Its length can be any value

d) It depends on the language

Answer: c

What is the minimum length of the non-empty segment in the Pumping Lemma Version II?

a) p

b) 1

c) 0

d) It depends on the language

Answer: b

What is the minimum number of iterations required in the Pumping Lemma Version II?

a) Zero

b) One

c) Two

d) It depends on the language

Answer: a

What is the Pumping Lemma Version II used for in language processing?

a) Parsing

b) Code optimization

c) Text analysis

d) All of the above

Answer: a