

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

Answer: b

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

Answer: b

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