

PEMBAHASAN UTS GENAP 2020/2021 TBO

By Diklat from HMIF Universitas Diponegoro

DISCLAIMER!!!

UTS DAN UAS TEORI BAHASA & OTOMATA 2021 BERBENTUK KUIS DI KULON..

Berikut beberapa soal yang mungkin muncul dari kuis-kuis sebelumnya

SIAP] Teori Bahasa dan Otomata A

Dashboard My courses [SIAP] [5520] [KM2020] [Regular] [PAIK5702] SI 2021/2022 Ganjil Teori Bahasa dan Otomata A 4 October - 10 October Kuis Lex-RL

Started on Saturday, 9 October 2021, 5:20 PM

State Finished

Completed on Saturday, 9 October 2021, 5:33 PM

Time taken 12 mins 15 secs

Question 1

Complete

Marked out of 1.00

Flag question

Given python code below

```
import re
pattern = "(a|d)-(a|d|d)-(a|d|d|d)"
pattern2 = r"\1|2|3"
number = input()
number2 = re.sub(pattern, pattern2, number)
print(number2)
```

The correct inputs below are

Select one or more:

- ☐ a. 01-234-5678
- ☐ b. 09 876 5432
- ☐ c. 98-275-432
- ☐ d. 12 345 6789
- ☐ e. 468143894
- ☐ f. 019234787

Your answer is correct.

Question 2

Complete

Marked out of 1.00

Flag question

This Language is Regular

$$L = \{x^a y^b z^c : a > 5, b > 3, c \leq b\}$$

Select one:

- ☐ True
- ☒ False

Question 3

Complete

Marked out of 1.00

Flag question

This Language is Regular

$$L = \{xyy^k z : x, y, z \in \{a, b\}^+, |x| \geq |z|\}$$

Select one:

- ☒ True
- ☐ False

Question 4

Complete

Marked out of 1.00

Flag question

This Language is Regular

$$L = \{x^a y^b z^c : a + b + c > 5\}$$

Select one:

- ☐ True
- ☒ False

Question 5

Complete

Marked out of 1.00

Flag question

Let L_1 and L_2 be Regular language. $L = \{x : x \in L_1, x^k \in L_2\}$ is Regular

Select one:

- ☐ True
- ☒ False

Question 6

Complete

Marked out of 1.00

Flag question

Given python code below

```
import re
pattern = "(a|d)-(a|d|d)-(a|d|d|d)"
pattern2 = r"\1|2|3"
number = input()
number2 = re.sub(pattern, pattern2, number)
print(number2)
```

The correct outputs below are

Select one or more:

- ☐ a. 98-275-432
- ☐ b. 01-234-5678
- ☐ c. 12 345 6789
- ☐ d. 019234787
- ☐ e. 09 876 5432
- ☐ f. 468143894

Your answer is correct.

Question 7

Complete

Marked out of 1.00

Flag question

This Language is Regular

$$L = \{xyy^k z : x, y, z \in \{a, b\}^+\}$$

Select one:

- ☐ True
- ☒ False

Question 8

Complete

Marked out of 1.00

Flag question

Given python code below

```
import re
pattern = "[a-zA-Z0-9]+@[a-zA-Z]+\.(undiplacid)"
email = input()
if(re.search(pattern, email)):
    print("valid")
else:
    print("wrong")
```

The "valid" email addresses below are:

Select one or more:

- ☐ a. user123@lecturer.undip.id
- ☐ b. user123@lecturer.id
- ☐ c. lecturer@undip
- ☐ d. user123@student.undip

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Finish review

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Show one page at a time

Finish review

The correct answer is 'True'.

The correct answer is 'False'.

Select one:

Select one:

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Question 5

Correct

Mark 1.00 out of 1.00

Flag question

Given python code bellow

```
import re
pattern = [a-zA-Z0-9]+@[a-zA-Z]+\.(undip|ac|id)*
email = input()

if(re.search(pattern, email)):
    print("valid")
else:
    print("wrong")
```

The "valid" email addresses below are:

Select one or more:

- ☒ a. user123@student.undip ✓
- ☐ b. lecturer@undip
- ☐ c. user123@undip.ac.id
- ☐ d. user123@lecturer.undip.id
- ☒ e. user123@lecturer.id ✓
- ☐ f. user123@student.ac.id

Your answer is correct.

The correct answers are:
user123@student.undip,
user123@lecturer.id

Question 6

Incorrect

Mark 0.00 out of 1.00

Flag question

This Language is Regular

$$L = \{xyy^Rz : x, y, z \in \{a, b\}^+\}$$

Select one:

- ☐ True
- ☒ False ✗

The correct answer is 'True'.

Question 7

Incorrect

Mark 0.00 out of 1.00

Flag question

This Language is Regular

$$L = \{xyy^Rz : x, y, z \in \{a, b\}^+, |x| \geq |z|\}$$

Select one:

- ☒ True ✗
- ☐ False

The correct answer is 'False'.

Question 8

Correct

Mark 1.00 out of 1.00

Flag question

Given python code bellow

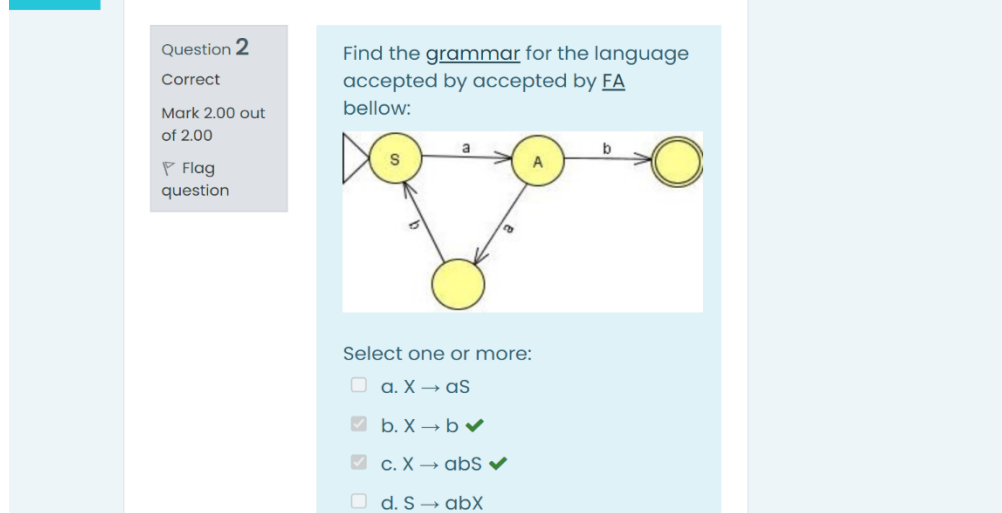
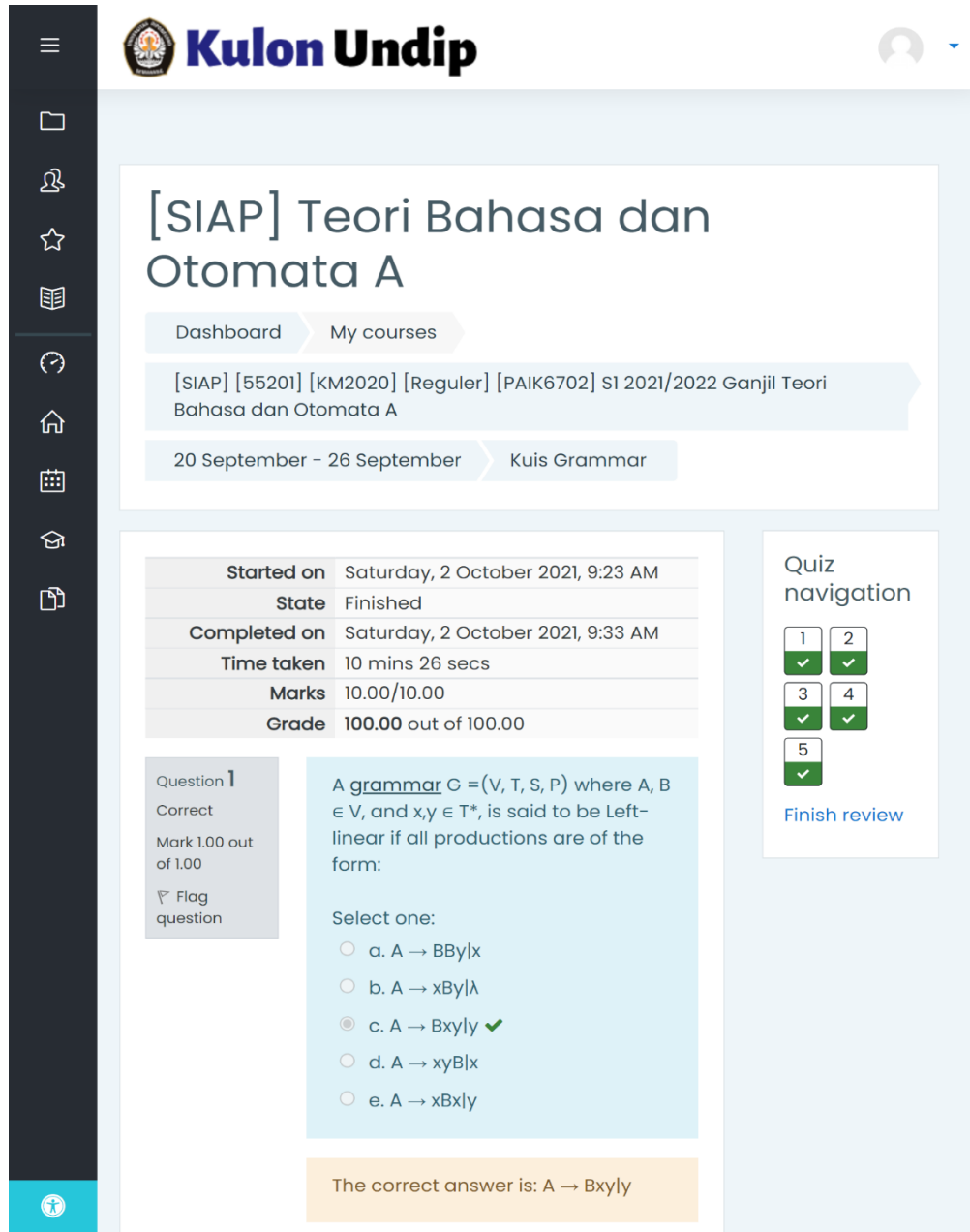
```
import re
pattern = "(\\d\\d)-(\\d\\d\\d\\d)-(\\d\\d\\d\\d\\d)"
pattern2 = r"\\1\\2\\3"
number = input()
number2 = re.sub(pattern,
pattern2, number)
print(number2)
```

The correct inputs below are

Select one or more:

- ☐ a. 468143894
- ☐ b. 12 345 6789
- ☐ c. 09 876 5432
- ☐ d. 019234787
- ☒ e. 01-234-5678 ✓
- ☒ f. 98-275-4132 ✓

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Question 3

Correct

Mark 2.00 out of 2.00

Flag question

Find the regular expression for the given Grammar

$(\{S\}, \{a, b\}, S, \{S \rightarrow abS | a\})$

Note:
use no space

Answer:

✓

The correct answer is: (ab) a

Question 4

Correct

Mark 2.50 out of 2.50

Flag question

Find the regular expression for the given Grammar

$(\{S, A, B\}, \{a, b\}, S, \{S \rightarrow Aab, A \rightarrow aA, B \rightarrow bB\})$

Note:
use no space

Answer:

✓

The correct answer is: aab(ab)

Question 5

Correct

Mark 2.50 out of 2.50

Flag question

Find a regular grammar for the Language:

$L = \{a^n b^m : n + m \text{ is even}\}$

Select one or more:

- ☐ a. $S \rightarrow aaS | \lambda$
- ☒ b. $A \rightarrow bbA | \lambda$ ✓
- ☐ c. $A \rightarrow baA | \lambda$
- ☒ d. $S \rightarrow aaS | A$ ✓
- ☐ e. $A \rightarrow bbA | S$

Your answer is correct.

The correct answers are: $S \rightarrow aaS | A$, $A \rightarrow bbA | \lambda$