

判断题

5

单选题

5

多选题

3

编程题

1

2-1

分数 3

作者 Yuchen Mao

单位 浙江大学

Delete the minimum number from the binomial queue given in the following figure.
Which one of the following statements must be **FALSE**?



☐

A.

there are two binomial trees after deletion, which are B2B_2B2 and B3B_3B3

☐

B.

23 and 14 are both the roots of some binomial trees

☐

C.

21 is the child of 13

☐

D.

23 and 24 are siblings

答案正确：3 分

2-2

分数 2

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Given the following table, what are the precision and the recall?

	Relevant	Irrelevant
Retrieved	21000	7000
Not Retrieved	3000	1000

○

A.

precision = 75% and recall = 87.5%

○

B.

precision = 87.5% and recall = 75%

○

C.

precision = 25% and recall = 12.5%

○

D.

precision = 12.5% and recall = 25%

答案正确：2 分

2-3

分数 3

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Consider the following game tree. If node ddd is pruned by α - β pruning algorithm, which of the following statements about the value of node aaa or node bbb must be correct?



☐

A.

both are less than or equal to 68

☐

B.

both are greater than or equal to 68

☐

C.

both are less than or equal to 65

☐

D.

both are greater than or equal to 65

答案正确：3 分

2-4

分数 3

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Let Σ be an alphabet with n symbols. What is the maximum number of bits that Huffman's algorithm might use to encode a single symbol in Σ ?

(This problem is from *Algorithms Illuminated* by Tim Roughgarden)

☐

A.

$\log_2(n)$

☐

B.

$\ln(n) \ln(n) \ln(n)$

☐

C.

$n - 1$

☐

D.

n

答案正确：3 分

2-5

分数 3

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Consider the recurrence $T(n) = T(n/2) + 2T(n/4) + n$ and $T(1) = 1$. Which of below is the tight upper bound for $T(n)$? (You may assume that n is a power of 2.)

☐

A.

$O(n)$

☐

B.

$O(n \log n)$

☐

C.

$O(n \log \log n)$

☐

D.

$O(n^2)$

答案正确：3 分

[上一题](#)

☐ 单选题作答

[下一题](#)

[退出答题](#)

判断题

5/5

共 10 分

[1](#)

[2](#)

[3](#)

[4](#)

[5](#)

单选题

5/5

共 14 分

[1](#)

[2](#)

[3](#)

[4](#)

[5](#)

多选题

3/3

共 16 分

[1](#)

[2](#)

[3](#)

编程题

0/1

共 10 分

[1](#)

共 50 分

未作答

待评测

答案正确

答案错误
ADS23MID
题目列表
提交列表
排名



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