

# Week 6 - hff & IW

<b>Due</b> No due date	<b>Points</b> 4	<b>Questions</b> 4	<b>Time Limit</b> None
<b>Allowed Attempts</b> Unlimited			

Take the Quiz Again

## Attempt History

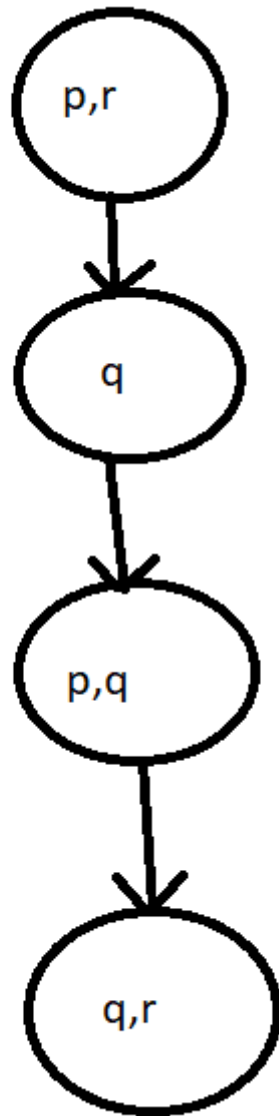
	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	1 minute	2 out of 4

Submitted Apr 20 at 10:46

Question 1

0 / 1 pts

What is the novelty value of the last state if  $F = \{p,q,r\}$ ?



☐ 1

☐ 2

☐ 3

☒  $|F| + 1$

Correct Answer

You Answered

Question 2

1 / 1 pts

IW(1) is a Breadth First Search that prunes generated nodes with novelty  $> 1$ . IW(1) can solve the TSP problem

☐ True

☒ False

Correct!

### Question 3

1 / 1 pts

Which statement is correct?

☒ Always  $h_{max} \leq h^+$ , sometimes  $h^* \leq h_{add}$  and  $h^* \leq h_{ff}$

☐ Sometime  $h_{max} \leq h^+$  and always  $h^* \leq h_{add}$  and  $h^* \leq h_{ff}$

☐ Sometimes  $h_{max} \leq h^+$  and sometimes  $h^* \leq h_{add}$  and  $h^* \leq h_{ff}$

☐ Always  $h_{max} \leq h^+$ ,  $h^* \leq h_{add}$  and  $h^* \leq h_{ff}$

Correct!

### Question 4

0 / 1 pts

What is the value of the delete relaxed plan heuristic  $h_{ff}$  if the goal is only package at D?



A

B

C

D

!!!

- Initial state  $I: t(A), p(C)$ .
- Goal  $G: t(A), p(D)$ .
- Actions  $A: dr(X, Y), lo(X), ul(X)$ .

	$t(A)$	$t(B)$	$t(C)$	$t(D)$	$p(T)$	$p(A)$	$p(B)$	$p(C)$	$p(D)$
$bs^{add}$	—	$dr(A, B)$	$dr(B, C)$	$dr(C, D)$	$lo(C)$	$ul(A)$	$ul(B)$	—	$ul(D)$

### Extracting a relaxed plan:

- $bs_s^{add}(p(D)) = ul(D)$ ; opens  $t(D), p(T)$ .
  - $bs_s^{add}(t(D)) = dr(C, D)$ ; opens  $t(C)$ .
  - $bs_s^{add}(t(C)) = dr(B, C)$ ; opens  $t(B)$ .
  - $bs_s^{add}(t(B)) = dr(A, B)$ ; opens nothing.
  - $bs_s^{add}(p(T)) = lo(C)$ ; opens nothing.
  - Anything more? No, open goals empty at this point.
- $\rightarrow h^{FF}(I) = ?$

☐ 1

☐ 3

☒ 4

☐ 5

☐ >5

ou Answered

orrect Answer