

# Quiz - Dynamic Programming

⚠ This is a preview of the draft version of the quiz

This is an online quiz. There will be no time limit to the quiz. You can attempt the quiz twice and the best of the scores will be retained. This is open notes and open internet quiz but refrain from discussing with anybody during the exam.

Note that this test cannot be taken past the due date for any credit.

This quiz is worth 10 points.  
Due Friday at Midnight (PST).

You can view the correct answers here post due date.



- Quiz Type** Graded Quiz
- Points** 10
- Assignment Group** Quizzes
- Shuffle Answers** Yes
- Time Limit** No Time Limit
- Multiple Attempts** Yes
- Score to Keep** Highest
- Attempts** 2
- View Responses** Always
- Show Correct Answers** After Apr 17 at 12am
- One Question at a Time** No

Due	For	Available from	Until
Apr 16	Everyone	-	Apr 16 at 11:59pm

Preview

Score for this attempt: **0** out of 10

Submitted Apr 19 at 9:17am

This attempt took less than 1 minute.

Unanswered

### Question 1

0 / 2 pts

What are the major required aspects in a problem in order to apply Dynamic Programming Technique?

☐ Be able to solve using top down and bottom up approach

☐ Base case to stop recurrence

Correct Answer

☐ Optimal Substructure and Overlapping subproblems

☐ Whether a problem can be divided or not



Unanswered

### Question 2

0 / 1 pts

In which of the following approaches we start with the base case and proceed to solve the bigger subproblems?

☐ Top-Down Approach

☐ None of the options

Correct Answer

☐ Bottom-up Approach

☐ Both

Unanswered

### Question 3

0 / 1 pts

In dynamic programming, the technique of storing the previously calculated values is called

Incorrect Answer

- ☐ Memoization
- ☐ Bottom-up approach
- ☐ Top-down approach
- ☐ Cache

Unanswered

#### Question 4

0 / 1 pts

The difference between Divide and Conquer Approach and Dynamic Programming is

- ☐ Use of recurrence formula
- ☐ The base case
- ☐ The way we divide the sub-problems

Incorrect Answer

- ☐ Whether the sub-problems overlap or not

Unanswered

#### Question 5

0 / 2 pts

A binary search algorithm searches for a target value within a sorted array. Binary search compares the target value to the middle element of the array; if they are unequal, the half in which the target cannot lie is eliminated and the search continues on the remaining half until the target value is found or until a search can no longer be performed. This problem can be solved using which of the techniques?

**Correct Answer**☐ Any of the two techniques☐ Divide and Conquer☐ Dynamic Programming☐ None of the options**Unanswered****Question 6****0 / 2 pts**

In the Longest Common Subsequence problem assume we are comparing two strings of lengths  $m$  and  $n$ . In the bottom-up approach the solution we build a 2-Dimensional array called  $\text{Cache}[m][n]$ . The final solution was obtained by accessing which element of the cache?

**Correct Answer**☐ The element in the bottom right corner of the  $\text{cache}[m][n]$ ☐ The last but one element in the  $\text{cache}[m][n]$ ☐ The first element in the  $\text{cache}[m][n]$ ☐ Any element in the  $\text{Cache}[m][n]$ **Unanswered****Question 7****0 / 1 pts**

In [ Select ] we start with the base case and build the solution starting from base case. In [ Select ] we start solving the the bigger problem proceed towards the base case.

**Answer 1:**

You Answered

(You left this blank)

Correct Answer

bottom-up approach

**Answer 2:**

You Answered

(You left this blank)

Correct Answer

top-down approach

Quiz Score: **0** out of 10