

# Quiz 10

ZJUI CS 101, FALL 2016

STUDENT ID:

NAME:

## Question 1.

Which of the following optimization techniques repeatedly moves to the best neighboring solution?

- A Hill climbing ★
- B Brute force
- C Random sampling
- D Random walk

## Question 2.

```
z = 13
n = np.array( (1,0) )
s = np.array( (-1,0) )
e = np.array( (0,1) )
w = np.array( (0,-1) )
d = [ n,s,e,w ]
x = np.array( (z//2,z//2) )
x += d[ np.random.randint( 0,4 ) ]
```

What does x represent in this code?

- A direction of travel
- B current location in array ★
- C step in a random direction
- D array of possible locations incl. current

## Question 3.

```
d = np.zeros( ( 3,4 ) )

if ???:
    print( 'a zero was found in the array' )
```

Which of the following comparisons should be included to make this code check if the array contains at least one zero?

- A d has 0
- B 0 in d ★
- C d.any() == 0 ★
- D d.all() == 0
- E d == 0