Quiz 10

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