Quiz on Section 3 Results for SevdanurGenc

! Correct answers are hidden.

Score for this attempt: 12 out of 12

Submitted Jun 22 at 10:59pm

This attempt took 20 minutes.

Question 1	1 / 1 pts
How do you create a simulated annealing sampler in D-Wave assurbave the following statement? from neal import SimulatedAnnealingSampler	ming we
sampler = SimulatedAnnealingSampler	
sampler = SimulatedAnnealler	
sampler = SimulatedAnnealingSampler()	
o sampler = Simulated	

Question 2	1 / 1 pts
Which one is not a valid parameter for the sample function?	
binary quadratic model	
onumber of reads	
ising model	
O beta schedule	

Suppose we created a simulated annealing sampler named sampler. By using which function can you sample directly from an Ising model without creating a bqm? sample_ising sample sample sample sing_sample

```
Question 4
```

Given that $x_i_t=1$ if node i is visited at time t and 0 otherwise and a sample obtained as a result of solving a TSP instance with N cities using simulated annealing, suppose we execute the above piece of code. Which one of the following(s) is(are) true about p?

p may contain less than N integers

p may contain more than N integers
p is always a permutation of integers between 0,N-1
✓ If the sample is feasible, p contains the list of visited cities.

```
Given that x_i_t=1 if node i is visited at time t and 0 otherwise and a sample obtained as a result of solving a TSP instance with N cities using simulated annealing, what is the above code performing?

It returns false if a node is visited at a time point.

It returns false if a node is visited more than once.

It returns false if more than one node is visited at a time.
```

```
for i, j in edges:
     for c in colors:
        if sample[f"x_{i}_{c}"] == 1 and sample[f"x_{j}_{c}"] == 1:
        return False
```

1 / 1 pts

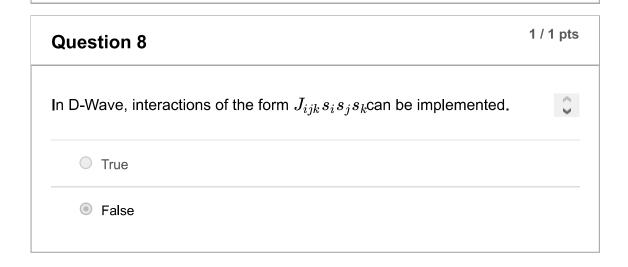
Given that x_i_c=1 if node i is colored with color c and 0 otherwise and a sample obtained as a result of solving a graph coloring instance using simulated annealing, what is the above code performing?

- it return false if a node is not colores
- it returns false if adjacent nodes are colored using the same color
- it return false if a node is colored using more than 1 color
- it returns false if adjacent nodes are colored using different colors

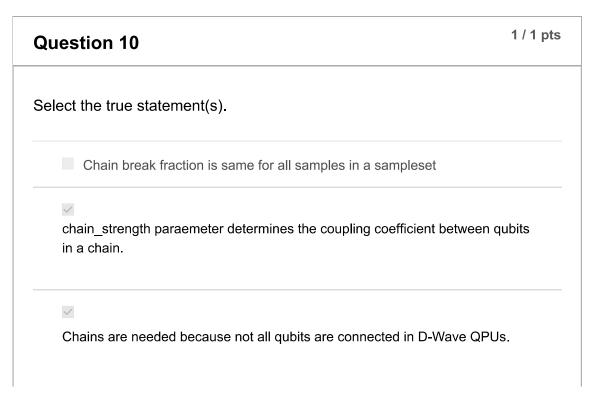
Question 7

Given that $x_i_c=1$ if node i is colored with color c and 0 otherwise and a sample obtained as a result of solving a graph coloring instance with N nodes using simulated annealing, suppose we execute the above piece of code. Which one of the following(s) is(are) true about coloring?

- coloring is a dictionary with keys as nodes and values as colors
- coloring can have more than N keys
- All colors appear exactly ones as the values of the coloring
- coloring can have less than N keys



Adiabatic quantum computing is universal, i.e. you can simulate gate based quantum computers using adiabatic quantum computing. True False



One should set the chain_strength as high as possible to obtain good results.

How do you set the annealing time to 100 microseconds when calling the sample function?

sampler.sample(bqm, num_reads=100)

sampler.sample(bqm, num_reads=1000, annealing_time=100)

sampler.sample(bqm, num_reads=1000, time=100)

sampler.sample(bqm, num_reads=1000, anneal_time=100)

Question 12	1 / 1 pts
How do you create a sampler to sample from D-Wave default QPU?	
<pre>sampler = DWaveSampler("default"))</pre>	
<pre>sampler = DWave()</pre>	
sampler = DWaveSampler()	
sampler = DWaveQPU()	

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