Started on	Friday, April 13, 2018, 12:00 AM
State	Finished
Completed on	Friday, April 13, 2018, 12:17 AM
Time taken	17 mins 29 secs
Grade	**60.00** out of 60.00 (**100**%)

Question 1

Complete

4.00 points out of 4.00

Given the networkx library imported, how can we create a simple, directed graph object?

```
import networkx as nx
```

Select one:

a.
```
nx.DirectedGraph()
```

b.
```
nx.DiGraph()
```

c.
```
nx.MultiGraph()
```

d.
```
nx.DGraph()
```

Question 2

Complete

4.00 points out of 4.00

Which of the following is not a basic component of a graph in the context of Network Analysis?

Select one:

a. edge

b. label

c. attribute

d. node

Question 3

Complete

4.00 points out of 4.00

According to Wikipedia, which graph data representation is better for representing sparse graphs efficiently?

Select one:

- a. Adjacency matrices
- b. Incidence matrices
- c. Adjacency lists

Question 4

Complete

4.00 points out of 4.00

Given a constructed graph named "g", how can we find all the neighbors of a node named "nd"?

(Assume node is in the graph)

```
import networkx as nx
```

Select one:

a.

```
nx.neighbors(nd)
```

b.

```
g.neighbors(node)
```

c.

```
nx.neighbors(node)
```

d.

```
g.neighbors(nd)
```

Question 5

Complete

4.00 points out of 4.00

Within the networkx library, what are four major types of graphs?

Select one:

- a. Adjacency list, Incidence matrix, Adjacency matrix, MultiGraph
- b. Graph(basic undirected graph), Digraph, MultiGraph, MultiDiGraph
- c. Graph, Digraph, Adjacency Graph, Incidence Graph

Question 6

Complete

4.00 points out of 4.00

Complete the following sentence by choosing a combination of words in the correct order:

A complete graph has a density of ____ and isolated graph has a density of _____.

Select one:

- a. 0; 1
- b. 1; 1
- c. 0; 0
- d. 1; 0

Question 7

Complete

4.00 points out of 4.00

According to wikipedia, which of the following sentences best describes a complete graph?

Select one:

- a. A simple undirected graph in which every pair of distinct vertices is connected by a unique edge.
- b. A simple directed graph in which every pair of distinct vertices is not connected by a unique edge.
- c. A simple directed graph in which every pair of distinct vertices is connected by a unique edge.
- d. A simple undirected graph in which every pair of distinct vertices is not connected by a unique edge.

Question 8

Complete

4.00 points out of 4.00

Two people who are friends, college classmates, and co-workers have a multiplexity of _____.

Select one:

- a. 2
- b. 6
- c. 3
- d. 1

Question 9

Complete

4.00 points out of 4.00

Which of the following statements is true about nodes on the periphery of a network?

Select one:

- a. Peripheral nodes have high centrality scores for this network.
- b. Peripheral nodes are not important for all networks.
- c. Peripheral nodes are not good sources of fresh information for this network.
- d. Peripheral nodes are connected to networks that are not currently mapped.

Question 10

Complete

4.00 points out of 4.00

Given one or more graphs, what operations can be performed as supported by the networkx library?

Select one or more:

- a. union
- b. compose
- c. complement
- d. disjoint_union

Question 11

Complete

4.00 points out of 4.00

Which of the following sentences best describes a cycle graph?

Select one:

- a. It is a planar undirected graph with *2n+1*vertices and *3n* edges.
- b. Some number of vertices of the graph are connected in a closed chain.
- c. It is a simple undirected graph in which every pair of distinct vertices is connected by a unique edge.
- d. It is a special kind of graph where every vertex of the first set is connected to every vertex of the second set.

Question 12

Complete

4.00 points out of 4.00

Which of the following metrics for social network analysis is a measure of likelihood that two associates of a node are associates?

Select one:

- a. Clique coefficient
- b. Distance
- c. Clustering cohesion
- d. Clustering coefficient

Question 13

Complete

4.00 points out of 4.00

Given a graph named "g", how can we find all cliques in this graph?

```
import networkx as nx
```

Select one:

a.

```
g.all_cliques()
```

b.

```
nx.cliques(g)
```

c.

```
nx.find_cliques(g)
```

d.

```
g.find_cliques()
```

Question 14

Complete

4.00 points out of 4.00

On a social network graph, which kind of nodes are good to monitor the information flow in the network or visualize what is happening in the network?

Select one:

a. central nodes

b. nodes with the shortest paths to all others

c. nodes between important constituencies

d. nodes with more connections

Question 15

Complete

4.00 points out of 4.00

To iterate all possible pairs in a given list or set, which iterator in the itertools library can we use?

Select one:

a. chain()

b. combinations()

c. groupby()

d. pairs()