1. Model validation as part of knowledge validation refers to
   a. Testing operational/conceptual model for internal consistency and results for external consistency
   b. Using technologies to test hardware used in KM system
   c. Using financial packages to determine the cost of KM system
   d. Developing model as per specification

2. The top-down approach to building learning models requires:
   a. Discovery of new patterns in the data through learning techniques.
   b. A synthesis of neural and fuzzy techniques.
   c. A hypothesis derived from observation.
   d. The exclusion of new data to the database.

3. Approval of a special reference group or the user of the results in knowledge validation is:
   a. Model validation
   b. Learning
   c. Cross validation
   d. Consensual approval

4. If the neural network needs a teacher with a training set of examples, then it is:
   a. Self actualizing
   b. Unsupervised learning
   c. Supervised learning
   d. Random-supervised learning

5. If no external factors influence the adjustment of the input’s weights and the neural network has no advanced indication of correct or incorrect answers, then the network is using:
   a. Supervised learning
   b. A training set
   c. Intuition
   d. Unsupervised learning

6. If a rule consists of the presence or absence of items, then it is:
   a. Boolean
   b. Quantitative
   c. Qualitative
   d. Multidimensional

7. If an association rule considers several attributes, then it is:
   a. Boolean
   b. Quantitative
   c. Qualitative
   d. Multidimensional
8. The starting node of a tree is called a:
   a. Seed
   b. **Root**
   c. Top
   d. Branch

9. One weakness of OLAP (Online Analytical Processing) is:
   a. As a visualization tool
   b. As an interactive tool
   c. As a first step in understanding the data
   d. **As an automatic pattern finder**

10. Data-mining definitions are derived from the scientific disciplines of:
    a. statistics, machine learning, and cognitive psychology.
    b. artificial intelligence, cognitive psychology, and statistics.
    c. **machine learning, statistics, and artificial intelligence.**
    d. cognitive psychology, artificial intelligence, and machine learning.

11. Portals were initially:
    a. **Search engines**
    b. Chat rooms
    c. Gopher sites
    d. Information portals

12. Human-to-human interactions via computer subsystems having no time or space constraints with anytime, anyplace occurrence of queries, responses and access is referred to as:
    a. **Asynchronous**
    b. Impersonalized
    c. Scattered
    d. Synchronous

13. Human-to-human interactions that are computer-based, occurring immediately (within 5 seconds) that may use video, audio, or data technologies are referred to as:
    a. Integrated
    b. **Synchronous**
    c. Asynchronous
    d. Personalized

14. The end note of a classification tree is termed as:
    a. Full stop node
    b. **Leaf node**
    c. Top node
    d. Stem node

15. Data mining task which involves use of some variables to predict unknown or future values of other variables is known as:
    a. Description task
    b. Analytical task
    c. **Prediction task**
    d. Written task