☑ Exercise 4

Read the following text and then answer the follow-up questions.

Data mining can be defined as the process of finding previously unknown patterns and trends in databases and using that information to build predictive models. Alternatively, it can be defined as the process of data selection and exploration and building models using vast data stores to **uncover** previously unknown patterns.

In healthcare, data mining is becoming increasingly popular, if not increasingly essential. Several factors have motivated the use of data mining applications in healthcare. The existence of medical insurance fraud and abuse, for example, has led many healthcare insurers to attempt to reduce their losses by using data mining tools to help them find and track offenders.

Another factor is that the huge amounts of data generated by healthcare transactions are too complex and voluminous to be processed and analyzed by **traditional** methods. Data mining can improve decision-making by discovering patterns and trends in large amounts of complex data. Insights gained from data mining can influence cost, revenue, and operating efficiency while maintaining a high level of care.

Data mining applications in healthcare can have tremendous potential and usefulness. However, the success of healthcare data mining hinges on the availability of clean healthcare data. In this respect, it is critical that the healthcare industry consider how data can be better captured, stored, prepared, and mined.

1. **What is the meaning of "uncover"?**
   a) Remove   b) Find out   c) Look after   d) Cleanse

2. **Which one of the following statements is false?**
   a) Traditional methods can analyze the huge amounts of data generated by healthcare transactions satisfactorily.
   b) The outputs of the data mining process are meaningful patterns and trends that are already in the data but were previously unseen.
   c) The healthcare industry can benefit greatly from data mining applications.

d) The success of healthcare data mining depends on the availability of clean healthcare data.

3. Why is data mining becoming increasingly popular in healthcare?
   I. Because data mining can easily be employed in healthcare.
   II. Because data mining can help healthcare insurers to find and track offenders.
   III. Because data mining can process and analyze the huge amounts of data generated by healthcare transactions.

   a) I and II   b) II and III   c) I and III   d) I, II and III

4. Which one of the following choices isn't the advantage of using data mining in healthcare?
a) Improvement of decision-making process
b) Reduction in the amount of healthcare insurers' losses
c) Facilitating the process of gathering data
d) Increase in operating efficiency

5. Why is it critical that the healthcare industry consider how data can be better captured?
a) Because data mining is becoming increasingly popular in healthcare.
b) Because data mining can analyze the huge amounts of data generated by healthcare transactions.
c) Because data mining is the process of finding previously unknown data.
d) Because it has an effect on the success of healthcare data mining.

6. According to the passage, traditional means ………
   a) unusable   b) commercial
   c) old   d) modern