Q1. A company has had technology issues which have compromised both the accuracy and completeness of some of its data records. Its chief information officer (CIO) has commissioned a review with the specific goal of ensuring the shortcomings are addressed and providing greater assurance in terms of the organisation’s future data management and storage. The focus of the CIO’s review is on addressing which of the following?

a) Data protection.
b) Data accessibility.
c) Data transferability.
d) Data integrity.

LO: 2
AC: 1.1
Correct answer: D

Q2. When planning future data storage capacity requirements, an organisation should consider which of the following as a priority?

1. Available disk space.
2. Business growth plans.
3. Location of computers.
4. Size of supplier base.

a) 1 and 2.
b) 2 and 3.
c) 3 and 4.
d) 4 and 1.

LO: 1
AC: 1.1
Correct answer: A

Q3. Cyber-crime in a business context most typically focuses on which of the following?

1. Encrypting data to prevent use by third parties.
2. Causing intentional disruption to business.
3. Preventing easy sharing of supply chain data.
4. Accessing commercially sensitive information.

a) 1 and 2.
b) 2 and 4.
c) 3 and 1.
d) 3 and 4.

LO: 3
AC: 1.3
Correct answer: B
Q4. Managing 'data variety' is a challenge for global organisations because of the sheer range of data types these organisations have to deal with. Is this correct?
   a) Yes, global organisations have to find ways to deal with huge data volumes very quickly.
   b) No, with technological advances today full data integration globally is very straightforward.
   c) Yes, such organisations have to contend with many different data sources and forms of data.
   d) No, all global organisation now have end-to-end fully integrated systems in all locations.

   LO: 1
   AC: 1.2
   Correct answer: C

Q5. Encryption is commonly used to provide assurance as to the relevance of data. Is this correct?
   a) Yes, it will ensure data records are up-to-date.
   b) No, it is a data back-up mechanism.
   c) Yes, it will automatically cleanse data.
   d) No, it is used to improve data security.

   LO: 2
   AC: 1.1
   Correct answer: D

Q6. A consultant has been tasked with developing a new data backup policy for a large central government department. Which of the following are essential considerations for the consultant to address in undertaking this task? Select ALL that apply.
   a) When was data first used by the department?
   b) Where is the data policy likely to be stored?
   c) What data needs to be backed up?
   d) How will the data policy be communicated?
   e) How often should the data be backed up?
   f) Why is data used by the department?
   g) When will the data policy be reviewed?

   LO: 3
   AC: 2.4
   Correct answer: C & E
Q7. An effective data resilience strategy should establish measures to minimise the impact of disruption through external events. Which of the following are such events. Select ALL that apply.

a) Viruses.
b) Encryption.
c) Cleansing.
d) Spyware.
e) Masking.
f) Malware.
g) Erasure.

LO: 2
AC: 2.2
Correct answer: A, D & F

Q8. Advanced Technology Group (ATG) has expanded considerably in recent years. Its chief information officer (CIO) has conducted a recent internal review to ensure ATG systems are suitable to meet the organisation’s future expansion plans. The CIO’s review has included feedback from many of ATG’s key stakeholders. On considering the review it is clear that ATG needs to invest more in internal systems because to two key issues. This is so ATG is able to cope with the increased data that will be generated by the expanding business and also to meet increasing demands for high speed, real-time, data accessing and processing. The issues highlighted relate to which of the following characteristics of data?

1. Viability.
2. Variety.
4. Velocity.

a) 1 and 2.
b) 2 and 3.
c) 3 and 4.
d) 4 and 1.

LO: 1
AC: 1.2
Correct answer: C
Q9. CLT Technology Solutions (CLTTS) is a rapidly growing business with worldwide operations. In recent years its data storage capacity requirements have increased dramatically, but despite this it has found a relatively straightforward and flexible solution for most of its requirements. How has CLTTS solved this requirement?

a) Cloud storage  
b) Additional hard drive storage  
c) Network attached storage  
d) Optical drive storage

LO: 1  
AC: 1.1  
Correct answer: A

Q10. The speed of retrieval of data and overall performance of systems will be determined mostly by which of the following?

1. Central processing unit (CPU)  
2. Basic input output system (BIOS)  
3. Extensible mark-up language (XML)  
4. Random access memory (RAM)

a) 1 and 2  
b) 3 and 4  
c) 2 and 3  
d) 1 and 4

LO: 1  
AC: 1.1  
Correct answer: D

Q11. An IT manager at Digital Data Storage Group has been tasked to find a method of improving the confidentiality of data. They are proposing to introduce the use of encryption. Will this achieve their goal?

a. No, encryption is a method of security not confidentiality  
b. No, there is nothing that can be done in this respect  
c. Yes, encryption is a method of improving data confidentiality  
d. Yes, but encryption cannot usually be applied to digitally stored data

LO: 3  
AC: 3.2  
Correct answer: C
Q12. Householders Insurance (HI) sells a wide range of insurance products to consumer customers, providing policies for properties, household contents, holidays and a wide range of vehicles. A few years ago HI invested in new systems technology and now the whole business is driven by data collection, storage and analysis. Its challenges have been due to the need to store all types of data including text, speech and video. It has also been challenged by the growing number of customers and transactions. HI's main challenges relating to data are:-

1. Velocity
2. Volume
3. Variety
4. Versions

a. 1 and 2
b. 2 and 3
c. 3 and 4
d. 1 and 4

LO: 1
AC: 1.1
Correct answer: B

Q13. Ensuring data integrity is a key goal for organisations. To meet this goal, systems development must ensure that all data is maintained in such a way as to ensure which of the following? That the data held is always: Select ALL that apply.

a. reliable
b. original
c. accurate
d. brief
e. disclosed
f. timebound
g. uncorrupted

LO: 3
AC: 3.1
Correct answer: A, C & G
Q14. A legal advisor is reviewing five separate cases relating to intellectual property rights and considering the supporting non-disclosure agreement (NDA) documentation.

Case 1 relates to a range of literary works including books, plays, art and photography. The advisor is considering a clause which spells out what information is not to be disclosed.

Case 2 involves a product invention. The advisor is considering a clause to state when the agreement will end and precisely for how long the confidential information must remain confidential.

Case 3 involves a case relating to a piece of music. The parties are in different countries and so the advisor is considering a clause which makes it clear which country’s laws will apply.

Case 4 relates to a product name and its logo. The clause under consideration relates to the requirements in respect of how the parties might share any confidential information with other parties.

Case 5 relates to the appearance of a product in particular its specific shape and decoration. The clause under clause relates to precisely who is involved in the confidentiality agreement.

You are required, for each case, to identify the area of intellectual property rights and recommend a clause within a typical NDA.

Choose from these options and drag and drop your answers into the table below. [10 marks]

<table>
<thead>
<tr>
<th>Area of intellectual property rights</th>
<th>Clause within NDA</th>
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<tr>
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LO: 2
AC: 2.1

Correct answer:
Q15. International Hotel Inc (IHI) operates a network of hotels in 78 countries. IHI has more than 3 million customer records, including sensitive data such as names and addresses, and in some case ‘stored’ credit card information. Its Chief Information Officer (CIO) has been tasked by the board to conduct an urgent review as one of its competitors has recently experienced a major security breach which was well publicised in the media. The board’s primary concern relates to potential cyber-crime where IHI’s customers are the primary target and could suffer personally. In response the CIO has already taken steps and introduced what they believe to be a robust solution.

The CIO is also investigating a recent incident when IHI is aware of a hacking attempt. The hacker managed to successfully access some of IHI’s customer data records. In addition to the obvious breach of client confidentiality, the marketing department which is the main user of this data has raised its own business-related concerns. To address marketing’s concerns a new contingency and business continuity arrangement is in place, where all data is now also stored off-site each day.

The marketing department is in discussion with the CIO about its broader data requirements. It is keen to easily and quickly gather data about the experience of customers and in particular any possible service improvements. The marketing department has an idea about a likely good source of this data.

Q15 i) Which of the following is an example of the board's primary concern?
   a. Identity theft
   b. Data integrity
   c. Data masking
   d. Corrupted storage

LO: 3
AC: 3.1
Correct answer: A

Q15 ii) Which of the following is likely to have been the CIO’s solution to address the board’s primary concern?
   a. Additional processing
   b. Anti-malware software
   c. Scalable storage
   d. Blockchain services

LO: 3
AC: 3.1
Correct answer: B

Q15 iii) The marketing department’s concerns are likely to be driven by which of the following?
   a. Data variety
   b. Increasing IT costs
   c. The reliability of the data
   d. Client product needs

LO: 3
AC: 3.2
Correct answer: C
Q15 Continued ...

Q15 iv) The best source of data for the marketing department’s needs is likely to be:
   a. online surveys
   b. hotel room feedback sheets
   c. social media
   d. feedback to reception staff

   LO: 1
   AC: 1.2
   Correct answer: C

Q15 v) Which of the following is the CIO’s solution to the marketing department's concerns?
   a. Responsible data handling
   b. Fully encrypted data
   c. Anti-counterfeiting software
   d. Data back-up

   LO: 3
   AC: 3.2
   Correct answer: D