<table>
<thead>
<tr>
<th>Question</th>
<th>Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20/20</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>24/20</td>
<td>+4 points: For additional info for question 2a.</td>
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<tr>
<td>3</td>
<td>16/20</td>
<td>-4 points: The answer for question 3d is $8.5 billion</td>
</tr>
<tr>
<td>4</td>
<td>18/20</td>
<td>-2 points: Double check your journal citation. You included the publisher instead of the journal title (<em>Engineering Structures</em>).</td>
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<tr>
<td>5</td>
<td>20/20</td>
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Extra Credit:

Missed Points:

Final Score: 98

Additional Comments:
2.009 Information Treasure Hunt – Pink A

1. In an effort to give back to the community, your 2.009 team is volunteering at a local food bank that has a large amount of dry goods and your team is concerned that they may combust. You decide to investigate dust explosions and need additional information from a handbook.

   a. What is the minimum igniting energy (J) for coffee?
      Page 609 of Marks' standard handbook for mechanical engineers states that the minimum igniting energy of coffee dust is 0.160 J.

   b. What is the ignition temperature (°C) of a powdered sugar dust cloud?
      Page 609 of Marks' standard handbook for mechanical engineers also states that the ignition temperature of a powdered sugar dust cloud is 370°C.


2. It would be helpful to get some statistics on the size of the global fingerprint sensor industry.

   a. Which region had the largest market in fingerprint sensors in 2020?
      According to a 2020 Fingerprint Sensor report by BCC Research, the Asia-Pacific Region had the largest market in 2020 with a size of approximately $6.5 billion.

   b. What is the projected size of this region’s market in 2025?
      The Asia-Pacific Region is projected to have a market size of $12.1 billion in 2025.

TODO: CITATION https://www.marketreportsworld.com/global-fingerprint-sensor-market-17892111


3. You need to find a partner to help develop and commercialize (hopefully) your new product idea for a fiber optic sensor. An industry expert has suggested to you that Amphenol Corporation might be a potential partner. Before contacting them, learn more about Amphenol Corporation. Uncover the following facts about the company’s operations:

   a. The year when the company was founded or incorporated (or changed ownership)
      Founded 1932
Incorporated 19/12/1986

b. The address of their headquarters
   358 Hall Avenue
   Wallingford, CT, 06492
   United States of America

c. Total number of employees worldwide (i.e., all sites, if possible)
   80,000 as of 31/12/2020

d. Latest revenue (sales) figures
   8,598,900 as of 31/12/2020

e. What is US 8-Digit SIC (Standard Industrial Classification) code for their primary industry?
   36780000 for electronic connectors


4. You would like to learn more about amusement or theme parks, and you know that the right book
   can provide a good summary on this topic. Use the resources found on the 2.009 Guide
   (https://libguides.mit.edu/2-009) to answer the following questions:

   a. Find a general book on amusement or theme parks, available in the MIT Libraries. Provide a good
      citation for the book, including the library call # at the end of the citation and which library has
      the item (Dewey, Rotch, Barker, etc.) or if it is an eBook.


      Available upon request at MIT Library Storage Annex. Call (617) 253-7040

   b. To find more specific information, you want to read a scholarly article on the narrower topic of
      roller coaster design.
      1. Use a database to search for an English language journal article on this topic published in
         2010-2021. Provide a good citation for the article, and include the bibliographic database
         you used to find the citation.
2. Does MIT have a print subscription to this journal for the year that the article was published? If yes, in which library is it held? Does MIT have access to an electronic version of this article?

No, MIT does not have a print subscription to the Elsevier Sciencedirect journal for when the article was published in 2018 (electronic only). An electronic version is available for MIT access.

5. You want to make sure your design or project idea is unique before you take it to a company or customer for production. Check the patent literature, and find one granted (not an application) United States utility patent for wireless headphones.

a. What is the patent title?

Systems and methods for controlling playback and other features of a wireless headphone

b. What is the patent number? (Tip: numbers starting with D, e.g. D593812, are design patents, not utility patents. Numbers starting with the year, e.g. US20060201950, are applications, not granted patents)

US10757499B1

c. Who is the assignee? The inventor?

Assignee: Sonos, Inc.
Inventors: Vautrin, Jodi; Laine, Aki; Krieger, Dana; Vossel, Philippe; Shyu, Vincent

d. Provide at least one classification code assigned to this patent (number and name, example: 446/486: Amusement Devices: Toys/ Resilient toy or actuator, OR A63F9/00: Sports;Games;Amusements: Card, board or roulette games; indoor games using small moving playing bodies, miscellaneous games: games not otherwise provided for)

G06F 3/165 - Management of the audio stream

e. Where did you find this patent/what database did you use?

We used PatentScout