Reminders:

Proper safety attire must be worn at all times:
  - Safety goggles
  - Closed toed shoes
  - Long sleeves
  - Long pants
  - Lab coat / apron

Clean up your lab station before leaving.

Write all answers legibly.

You will have 50 minutes to complete this exam.

Failure to follow these instructions or the official ruleset will result in a penalty or disqualification.

Team Name

Student Name 1

Student Name 2

Do not open until instructed
An attempted armed robbery has taken place at the Roadside Store, a small convenience store that sells snacks and office supplies. A masked man entered the store with a firearm and demanded money from store worker Chris Tucker. The store also looks as though it has been trashed; a shelf lined with chips and candy has been turned over along with a shelf of office supplies. Some of the products have been damaged. A sandwich package has been torn open, and there are paper clips and various candies spilled on the floor.

There is a video from the security camera without audio. The burglar entered the store through the front door at 12:03AM, as Chris Tucker was preparing to close the store. He appears to be wearing all-black, and has on gloves and a ski mask that covers his entire head. He proceeds to walk up to the register which Mr. Tucker was cleaning with a rag and cleaning solution. The two men look at each other; it looks like they are talking. The perpetrator then drew his firearm; Chris Tucker responded by ducking and pulling out his own gun from under the counter. Immediately afterwards at 12:06:29, the burglar shot Chris Tucker in the shoulder and began to run towards the front door. His jacket catches on the edge of a shelf and he roughly kicks at it before managing to knock two shelves over, freeing himself. As this happens, Chris Tucker recovers from his wound and slowly stands up. He walks towards the front and fires twice at the burglar, who manages to escape through the front door.

According to Chris Tucker, the burglar threatened him with the gun and demanded that he take out all the money from the safe. He estimates that the man was about 6’ tall. Mr. Tucker states that the register is emptied every shift and the money is stored in a secret safe in the back staff room. He explains that the contents of the safe are taken out every Friday at variable times to be deposited; a customer should not normally know about it unless they visited the store regularly. Based on these details, a list of 4 suspects was created.
The following evidence is collected from the crime scene:

- **Powder I** is on the floor between the overturned shelves
- **Powder J** is sampled from the front door handle
- **Powder K** is found on the floor in front of the counter
- **Powder L** is collected from the area near the front entrance

- **Plastic 5** is found with Powder I beneath the shelves
- **Plastic 6** is found on the entrance mat at the front door

- **Fiber 5** is found on the door handle
- **Fiber 6** is caught on the one of the overturned shelves

- **Hair 1** is found behind the counter on the floor
- **Hair 2** is found on the overturned shelves
- **Hair 3** is found on top of the counter
- **Hair 4** is found on the floor in front of the register at the counter
- **Hair 5** is found on the entrance mat at the front doorway
- **Hair 6** is also found on the entrance mat

- A smear of ink on the corner of an overturned shelf was sampled. Its chromatography can be viewed at the Chromatography Station

- The **2 blood spatters** from the scene can be seen in the front of the room.
- **Blood sample 1** is taken from **Spatter 1, which is on the floor behind the counter**
- **Blood sample 2** is taken from **Spatter 2, which is on the front door about 5' above the floor.**

Assume all fingerprints are from the right hand

- **Fingerprints A, B and C** are taken from the front door handle
- **Fingerprints D, E, and F** are taken from the front counter
- **Fingerprint G** is taken from the register
- **Fingerprints H** is taken from the shelf
- **Fingerprint I** is taken from the floor
- **Fingerprint J** is taken from the safe handle
- **Fingerprints K and L** are taken from the front door window
Victim Profile

Name: Chris Tucker  
Sex: M  
Age: 27  
Blood type: B-  
Height: 6’1”  
Hair color: Brown  
Eye color: Brown  
Occupation: Roadside Store employee (late shift)

Background:

Chris Tucker is the only late shift worker of the Roadside Store. He covers the hours from 4:00PM to 12:00AM. His responsibilities include restocking the product shelves, managing the register, moving the register money to the safe, and closing up the store. Every Friday he moves the money to the safe at a random time during his shift. He has only worked at the store for two months, and says he has not worked long enough to recognize the store regulars. There is a handgun behind the counter for emergency situations.

Fingerprints:
Suspect Profile

Name: David Lowsky  
Sex: M  
Age: 57  
Blood type: TBD  
Height: 5’ 11”  
Hair color: Black  
Eye color: Brown  
Occupation: Middle school teacher

Background:

David Lowsky is a middle school teacher at Baylor Middle School that frequently stops by the Roadside Store on his way back from work. He teaches science, and his work often involves making demonstrations for the students. This past week, he has been working on a fish dissection lab with his class. David Lowsky has two children, Thomas and Ann. They have moved out for work in different parts of the country. Lowsky’s wife passed away four years ago; he lives with his two pet Golden Retrievers. He enjoys knitting in his free time. He is currently injured; there is gauze wrapped around his right thigh and he uses crutches. He claims that the injury was due to an accident where he tripped while walking his dogs.

David Lowsky says that he was asleep at the time the crime occurred. He states that he did not notice any suspicious individuals in Roadside Store when he entered around 3:30PM. David buys various snacks from the store, including beef jerky, candy, and chips.

Evidence Collected:

Powder D is found on his shirt. Traces of Powder B are found in his pants pocket. Plastic 1 is present in his shoes. A strand of Fiber 1 is taken from his hand. Ink A was found on his sleeve cuff.

Fingerprints:
Suspect Profile

Name: Adam Yeng  
Sex: M  
Age: 19  
Blood type: TBD  
Height: 6’ 1”  
Hair color: Black  
Eye color: Brown  
Occupation: Student (Greenwick College)

Background:

Adam Yeng is a college student studying computer science at Greenwick College. He started going to the Roadside Store 25 days ago at the same time he began attending the nearby gym, GoFit. Yeng goes to the gym regularly to attend kickboxing lessons on Thursdays and Fridays. He lives with three others in an on-campus dorm; there are no pets allowed inside. He enjoys gardening and participates in a student-run college beautification project which involves planting and mulching trees around campus. His left hand is wrapped up in a bandage; Yeng states that he accidentally injured it yesterday while unloading a tree from a truck.

Adam Yeng says that he was working on a group computer science project in the library at the time the crime occurred. He says no members of the group left the library until they were finished late at night around 2:30AM. Adam states that he did not go to Roadside Store because he had to work on his project, but usually likes to buy Man-star energy drinks from the store.

Evidence Collected:

Powders C and A are found on his shirt. Plastic 2 was taken from his pants. A sample of Fiber 2 is taken from his shirt. Ink B was found on his pants leg.

Fingerprints:
Suspect Profile

Name: Wayne Roberts  
Sex: M  
Age: 24  
Blood type: TBD  
Height: 6’ 2”  
Hair color: Brown  
Eye color: Green  
Occupation: Refrigeration Engineer

Background:

Wayne Roberts works as a field refrigeration engineer for the Hashizoki Company. He was tasked with diagnosing and repairing the drink ice machines at the Roadside Store 14 days ago and began to frequent the store afterwards, as it is on his way home from work. His work typically consists of responding to maintenance requests and his specialty is fixing damaged refrigeration circuits through tubing replacement and brazing. He lives in the Northshire Apartment Complex which is close to the Greenwick College campus that he used to attend. Roberts enjoys playing video games, watching anime, and cooking. His left shoulder is wrapped in a bandage; Roberts says that he had accidentally burnt himself with a hot pipe while brazing four days ago.

Wayne says he was asleep at the time the crime occurred. He states that he did not go to the Roadside Store on the day of the crime because he was out getting pizza with some friends. Wayne says that he typically buys the Roadside Store’s sour-and-sweet gummy worms and a drink on his way back from work.

Evidence Collected:

Powder E is found on his shirt. Powder F is found on his watch. Plastic 3 was taken from his pants. A strand of Fiber 3 is taken from his hair. Ink C was found on the sole of his shoe.

Fingerprints:
Suspect Profile

Name: Matthew Lyons  
Sex: M  
Age: 35  
Blood type: TBD  
Height: 6’3”  
Hair color: Black  
Eye color: Brown  
Occupation: Mailman

Background:

Matthew Lyons works for the Hamazon company’s delivery service. His work is split between delivering packages from Wednesday-Friday and helping inventory the Hamazon warehouse on Mondays and Tuesdays. He has been a regular of the Roadside Store longer than Chris Tucker has worked in the store and often goes to buy lunch on his delivery days. Matthew lives with his wife and one daughter in a condo. Their relatives own a small family farm nearby. Matthew often brings his daughter to the farm because she likes to play with the animals. He also likes to watch football with his brother-in-law at the farm. His right arm is wrapped in a sling; Matthew states that he broke his arm while attempting to ride a horse at the farm last week.

Matthew says that he was watching TV with his wife at the time the crime occurred. He says that he did not see anyone suspicious when he went to the store around 12:00PM to buy a sandwich and bag of chips for lunch.

Evidence Collected:

Powders G and H are found on his shirt. Plastic 4 was taken from his pants. A sample of Fiber 4 is taken from his jacket. Ink D was found on his wrist.

Fingerprints: