**TERM REVISION** 1ST Evening Vocational High School

ELECTRICAL ENGINEERING

School Year: 2020-2021

**A. READING**

**Read the text below and answer the questions that follow:**

**ELECTRICAL SAFETY - BE SAFE AT WORK**

**Safety Precautions Every Electrician Student Should Know**

<https://patinstitute.ca/electrician-training-8-essential-safety-precautions/>

Did you know that the voltage and available electrical current has enough power to cause death by electrocution?

All electrical systems have the potential to cause harm. Your body is a natural conductor of electricity, and is vulnerable to electrical shocks, burns and arc blasts. Here are some essential safety measures to know and respect.

**1. Don’t touch someone who’s being electrocuted!**

Turn off the main power source, and call for emergency assistance. If you know CPR, begin working on the individual while waiting for the ambulance.

Can’t turn off the power source? Push the person away from the contact with a non-conducting material—like wood or plastic.

**2. Always use GFCIs in damp or wet work areas**

Risk of electric shock is higher when you work around water. Remember to install Ground Fault Circuit Interrupters (GFCIs) before you begin work in a damp or wet area.

**3. Inspect & maintain your electrical tools**

You should always inspect your tools prior to use, and immediately stop using a tool as soon as it needs repair. Check your power tools for frayed cords or exposed wires.

**4. Follow proper lockout/tagout procedures**

When beginning an inspection or repair job turn off the current at the switch box, and padlock the switch in the off position. The same applies to any equipment or machines you may be servicing.

**5. Wear the right safety gear**

Standard personal protection equipment includes goggles, insulated gloves, sleeves, hoods, blankets, line hose, and non-conducting hard hats. Just like your tools, this gear should be inspected before each use—and discarded or sent for repair if not serviceable.

**6. Choose the right ladder**

Fibreglass ladders may be more expensive, but they have a long life—and may just save yours!

**Select the correct options according to the text**

1. The main danger one faces with high voltage and current is the burning of his clothes

2. You can you help someone who’s being electrocuted by turning off the power and calling for help.

3. People are shocked by electricity when current runs through their body.

4. Metal is a safe material for use.

5. When inspecting an electrical system keep the current running to find the faulty part.

6. It is dangerous to work near a wet area.

7. Fibreglass ladders are safe to use.

8. When someone is being hit by current do not try to remove him with your bare hands.

9. Safety gears do not need inspection.

10. A hard hat is protective equipment.

**B. VOCABULARY**

**Fill in the blanks with the correct form of the words in capital letters.**

1. Modern life would be unthinkable and unlivable without electricity. (ELECTRIC)

2. Radio and television have improved communication between different parts of the world. (COMMUNICATE)

3. The hospital has a backup generator in case there is a power failure.  (GENERATE)

4. The movement of electrons between two differently charged bodies is what we call ‘electric current’. (CHARGE)

5. You should disconnect the power before attempting to repair electrical equipment. (CONNECT)

6. Wires are also called conductors. (CONDUCT)

7. Materials which contain few electrons and permit relatively little current to flow are called insulators. (INSULATE)

8. Resistance is measured in Ohms. (RESIST)

9. Anyone who works as an electrician should be trained in the installation of wires. (INSTALL)

10. Voltage is the measurement of electrical pressure running through a wire. (VOLT)

**C. GRAMMAR Choose the word or phrase which best completes each of the sentences below.**

1. Electrical engineers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(design / are designing)** the electrical installation of buildings.

2. Most technicians \_\_\_\_\_\_\_\_\_\_\_\_\_ **(may / must)** be strong enough to work under hard conditions.

3. An organized technician always \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(keeps / is keeping)** their tools in good working order.

4. Don’t touch these wires! You \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(should / may)** be electrocuted!

5. I see that they \_\_\_\_\_\_\_\_\_\_\_\_\_ **(wear / are wearing)** a face shield for their safety.

6. Why does the refrigerator\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(make / makes)** this strange noise?

7. I work for an electric company which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **(is supplying / supplies)** a lot of households with electricity.

8. The workers are downstairs. They \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(are loading / load)** the truck with the faulty components we received yesterday.

9. I’m sorry but I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(don’t have / can’t)** diagnose the problem with your power line.

10. You\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(should / may*)*** ask for a technician to check your power network. It seems that there is a problem in the operation.