

BACCALAURÉAT PROFESSIONNEL

ÉPREUVE ORALE SPÉCIFIQUE – ANGLAIS

TECHNICIEN DU FROID ET CONDITIONNEMENT DE L’AIR

**SECTION EUROPÉENNE
DURÉE DE L’ÉPREUVE : 20 minutes**

La calculatrice et le dictionnaire ne sont pas autorisés.

AIR CONDITIONING MAINTENANCE

Situation:

You are a maintenance agent and you have to intervene to ensure the maintenance of an air conditioning.

Tasks:

- Explain why a regular maintenance is useful.
- Detail the operations you are going to suggest to the customer and justify.

energy saver

An air conditioner's filters, coils, and fins require regular maintenance for the unit to function effectively and efficiently throughout its years of service. Neglecting necessary maintenance ensures a steady decline in air conditioning performance while energy use steadily increases. Check out our [Energy Saver 101 Infographic: Home Cooling](#) for more ways to help improve your comfort and the efficiency of your air conditioner.



Replacing or cleaning air conditioner filters is a critical maintenance task. | Photo courtesy of ©iStockphoto/firemanYU.

The most important maintenance task that will ensure the efficiency of your air conditioner is to routinely replace or clean its filters. Clogged, dirty filters reduce the amount of airflow and significantly reduce a system's efficiency. In addition, when airflow is obstructed, air can bypass the filter and deposit dirt directly into the evaporator coil and impair the coil's heat-absorbing capacity. Replacing a dirty, clogged filter with a clean one can lower your air conditioner's energy consumption by 5% to 15%.



For central air conditioners, filters are generally located somewhere along the return duct's length. Common filter locations are in walls, ceilings, or in the air conditioner itself. Room air conditioners have a filter mounted in the grill that faces into the room.

Some types of filters are reusable; others must be replaced. They are available in a variety of types and efficiencies. Clean or replace your air conditioning system's filter or filters every month or two during the cooling season. Filters may need more frequent attention if the air conditioner is in constant use, is subjected to dusty conditions, or you have fur-bearing pets in the house.

Air Conditioner Coils

The air conditioner's evaporator coil and condenser coil collect dirt over their months and years of service. A clean filter prevents the evaporator coil from soiling quickly. In time, however, the evaporator coil will still collect dirt. This dirt reduces airflow and insulates the coil, reducing its ability to absorb heat. To avoid this problem, check your evaporator coil every year and clean it as necessary.



Outdoor condenser coils can also become very dirty if the outdoor environment is dusty or if there is foliage nearby. You can easily see the condenser coil and notice if dirt is collecting on its fins.

You should minimize dirt and debris near the condenser unit. Your dryer vents, falling leaves, and lawn mower are all potential sources of dirt and debris. Cleaning the area around the coil, removing any debris, and trimming foliage back at least 2 feet (0.6 meters) allow for adequate airflow around the condenser.

Coil Fins

The aluminum fins on evaporator and condenser coils are easily bent and can block airflow through the coil. Air conditioning wholesalers sell a tool called a "fin comb" that will comb these fins back into nearly original condition.



Condensate Drains Occasionally pass a stiff wire through the unit's drain channels. Clogged drain channels prevent a unit from reducing humidity, and the resulting excess moisture may discolor walls or carpet.