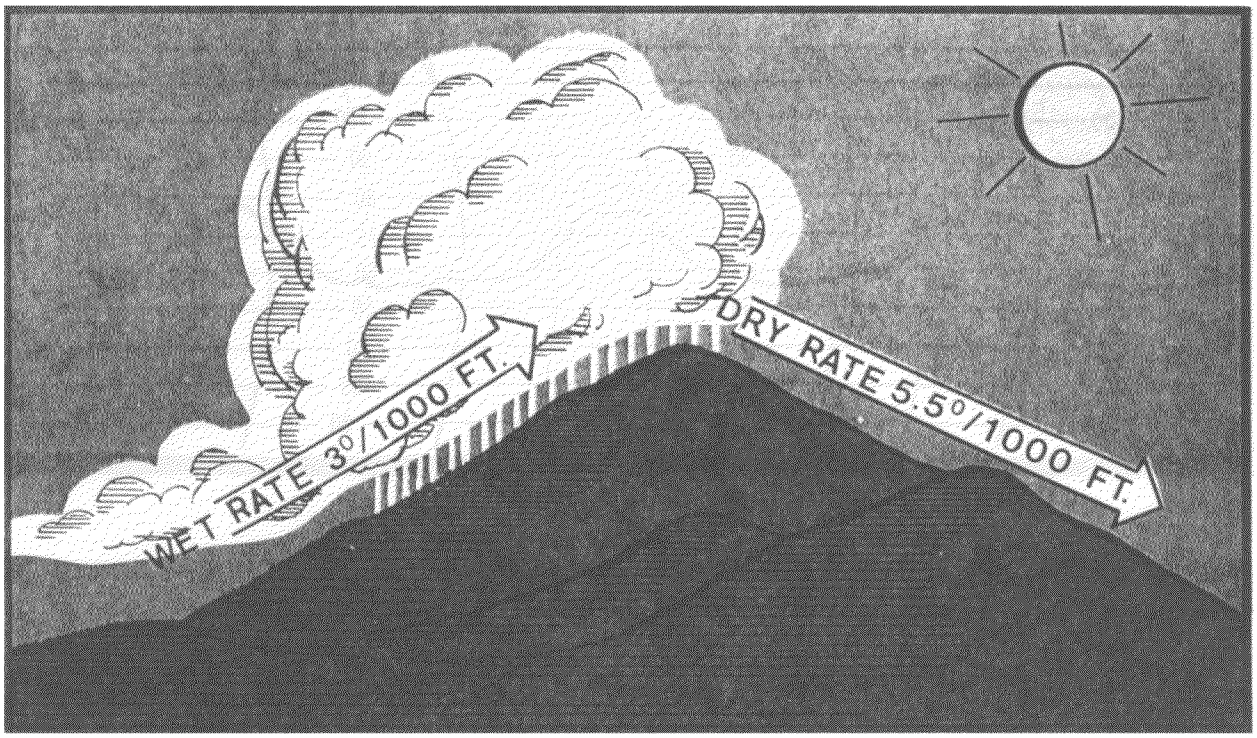
FIGURE 3 — SURFACE TEMPERATURES DEPEND ON SURFACE PROPERTIES



QUESTION 2

Why are forested areas generally cooler during daytime than grassland areas?

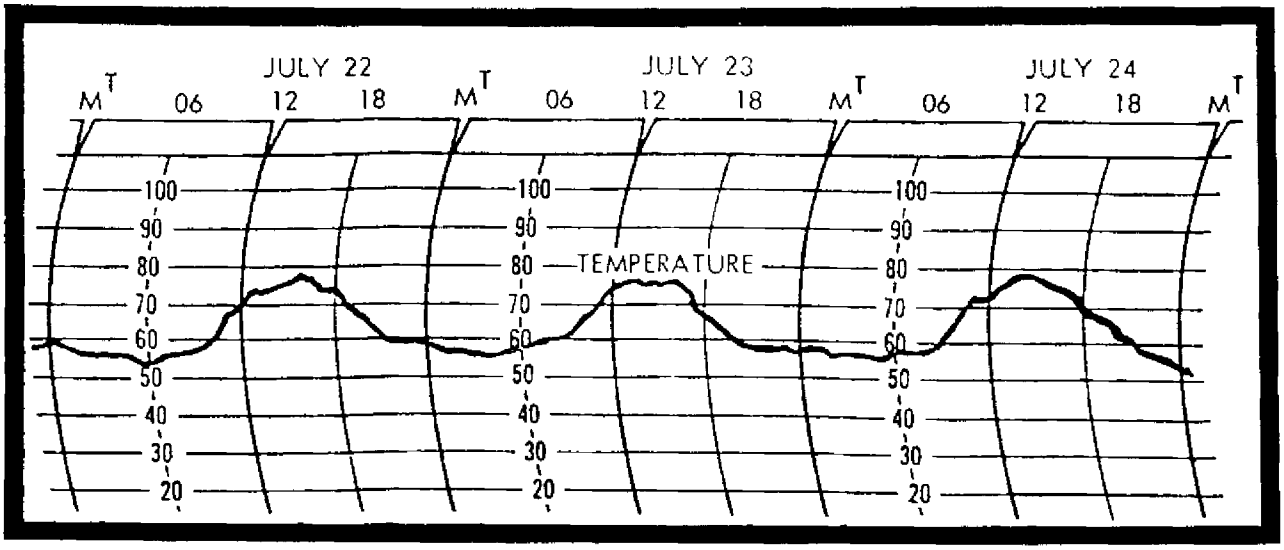
1. Heat is used for the vaporization of moisture from transpiration of trees.

2. Tree canopies shade the ground surfaces.

3. Heat energy is required in the production of food or growth of plants.

4. Tree canopies do not retain their heat due to their low conductivity.

FIGURE 4 — TYPICAL TEMPERATURE TRACE FROM LOW-LEVEL STATION



B. TEMPERATURE DECREASES WITH INCREASES IN ALTITUDE ACCORDING TO THESE TEMPERATURE LAPSE RATES:

	Air Mass	Lapse Rate	
1.	_____	_____	Dry air moving up or down. It is a function of atmospheric pressure, air density, and the molecular activity of a parcel of air.
2.	_____	_____	Moist air rising vertically. It is affected by the release of latent heat from the condensation of water vapor.
3.	_____	_____	An average throughout the lower atmosphere over time and space. It changes by time of day depending on air stability and the winds mixing the air at various levels.

LAPSE RATES AT CERTAIN LEVELS CAN BE MORE THAN 5½°, THUS UNSTABLE AIR. OR LESS THAN 3° WHICH WOULD BE STABLE AIR.