- it is always an emergency (Why?/Why not)

Any pressurization issue in flight presents a real threat for aircraft because it can deteriorate into decompression, which is considered to be a serious emergency for aircraft flying at cruising altitudes. In case of decompression a diversion to the nearest available aerodrome and emergency landing are likely, although if decompression is non-explosive the aircraft may continue to the destination.

- differences between a pressurization problem and depressurization

Depressurization is a rapid loss of atmospheric pressure due to damage of fuselage construction when the air inside the aircraft becomes as thin as outside and thus not appropriate for breathing.
Pressurization problems can be caused by: Technical reasons, Outside factor, Human factor.
I mean *Pressurization problems are the cause, and depressurization is the consequence.*

- differences between a slow, rapid and explosive depressurization

Explosive and rapid depressurization occurs in a matter of seconds and is normally accompanied by a loud bang. A gradual depressurization poses grave risk because it occurs over a longer time and due to the gradual change in air pressure it can stay undetected until it's too late to respond appropriately.

- the most dangerous type of depressurization

I think explosive decompression is the most dangerous one. If it occurs, the cabin gets filled with a thick fog, the crew or passengers may get buffeted by strong winds and hit by debris and extremely cold temperatures. The great danger of gradual depressurization is that the crew might get incapacitated due to hypoxia before even detecting the problem.

- possible reasons for pressurization problem/depressurization

There are several reasons that may lead to depressurization: a bird strike, a structural failure, an unsecure door, in-flight explosion, metal fatigue, uncontained engine failure, malfunctioning of the air-conditioning system, electrical or pneumatic system failure (bleed air system), and bomb detonation.

- related problems due pressurization problem/depressurization

A number of associated problems can arise during decompression and emergency descent. The most typical are:
• communication problems including poor message quality due to oxygen masks on, use of non-standard phraseology, late reaction, wrong read back and non-compliance with ATC instructions;
• medical issues, such as bleeding noses, burst eardrums and decompression sickness; possible heart arrest, high blood pressure due to panic during decompression; injuries during emergency descent and from flying debris;

• problems with the control of the aircraft: damage to aircraft systems or structural damage affecting the aerodynamic characteristics of the aircraft.

- emergency descent is necessary or not

It depends on the type of decompression and the stage of flight. For example, in case of explosive decompression on the cruising FL, the pilots need immediately descend up to fl 100 or to the minimum safe altitude in the area.

- actions and requests of the crew

In case of decompression flight crew conduct a series of emergency procedures. The pilots' number one priority is to retain consciousness by fitting oxygen masks, then to commence an emergency descent to approximately 10 000 feet or to the lowest safe altitude where people can breathe without supplemental oxygen. An emergency should be declared and ATC should be told that the aircraft is in descent, though sometimes pilots initiate emergency descent even without warning. Pilots can turn out from track to reduce risk of loss of separation with other aircraft in the area. Their requests about vectoring to the nearest suitable aerodrome, its data (runway-in-use length and width, PCN, landing systems available) and metreport as well as emergency and medical services on standby will follow.

- controller's assistance

To help the pilot in emergency, we should follow the ASSIST principles:
- Acknowledge the nature of emergency;
- Separate the emergency aircraft from other traffic. Clear the airspace beneath the plane.
- Silence – impose silence if needed.
- Inform all concerned.
- Support the pilots in any way possible. Arrange whatever is necessary for the pilot.
- Time – give pilots sufficient time to solve the problem (to troubleshoot); do not press pilots with non-urgent messages.

- what vehicles/services are alerted

All appropriate services and vehicles must be alert. There are medical, emergency and search and rescue service (if required).