Final learning assessment

Fill in the blanks in the following sentences:

1. Many compounds are unstable and can ________ rapidly. Examples are inorganic and organic ________. Chlorates and perchlorates. Avoid grinding and drying operations conducted with unstable compounds as they could ___________ and cause __ ___________.

2. Pyrophoric materials (e.g. lithium alkyls, metal hydrides) spontaneously combust on contact with _____. Take extreme care when handling these materials.

3. Avoid adding ________ to a concentrated acid. Adding acid to ________ is an inherently safer process.

4. Keep the maximum size of bench containers less than _____ ml. This reduces the risk of ___________ and consequence from an incident.

5. Work equipment constructed from glass needs special consideration when used above or below ______________ pressure. The stored energy involved means that any breakages will be accompanied by flying glass, so items such as glass vacuum desiccators should be protected with a ________, framework or _________. Admit air carefully and ________ before opening.

6. Wear gloves when handling chemicals. They should be of a suitable material to offer protection from the substance in use. Information is contained in the ________ ________ ________ on suitable gloves.

7. Consult manufacturers’ charts to check ’________ times’. Discarded gloves maybe classified as __________ waste for disposal purposes.

8. The ________ should be kept ________ when you are not actively working in at the fume cupboard. In the event of an explosion, the ________ acts as a shield and it also provides containment in the event of fire.

9. Keep electrical equipment away from ____________ materials and from water.

10. If you are storing flammable materials in a fridge, then make sure that the fridge is rated for flammable atmospheres, i.e. it is ‘________ free’.

11. Any spillages on the bench should be cleaned up ____________, while being mindful of the nature of the chemicals involved.

12. Burns can be __________ or chemical. They should be immersed in cold ________ immediately, or washed in running water for a length of time to cool or removed from contamination before covering with a dry dressing.

13. Be aware of the emergency ______ ______ measures required. Specifically, take note of the materials being used and the advice given on the safety data sheet (SDS) for the treatment of exposure.