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**Q1/ define the following term.**

1-Chemical security,

2- Flash point

3- combustible liquid

4- auto-ignition temperature

5- fire triangle

6-explosive limit.

7- chemical Safety

8- flammable liquid

9- compressed gases

10- Asphyxiation

**Q2/ Sign True (☑) or False (X) . 30 M**

1. Do not store food or beverages in the laboratory environment.
2. Footwear should not be cover feet completely
3. ever open a reagent container until the label has been read and completely understood.
4. Cylinders should be strapped individually.
5. Cylinders should be stored near radiators or other heat sources.
6. Keep the number of cylinders in a laboratory to a minimum to reduce the fire and toxicity hazards.
7. Never place acetylene cylinders on their side.
8. store full and empty cylinders together.
9. Notify your teacher if any spills or accident occur.
10. Wear a laboratory coat to protect skin and clothing from chemicals.
11. Label everything so people cannot recognize hazardous chemicals.
12. In chemical safety people need to be able to leave quickly via many routes
13. Do not pipette by mouth.
14. Never place acetylene cylinders on their side.
15. Protection should be provided for the lab worker and also the lab partner
working nearby.
16. Do not need to Notify your teacher if any spills or accident occur.
17. Some gases are not corrosive in their pure form, but can become extremely destructive if a small amount of moisture is added.
18. Cylinders should be strapped individually.
19. Do not place cylinders where they may become part of an electric circuit
20. Small quantities of flammables present the same hazard as large quantities - capable of giving off ignitable or explosive vapors

**Q3/ choose correct answer**

1. Flammable liquids give off vapors that, in most cases, are ….
2. Lighter than air **b**- heavier than air **c**- equal to air **d**- none of these
3. Asphyxiation is a simple asphyxiation is the primary hazard associated
with …
4. Oxidized gas **b**- reduced gas **c**- inert gas **d**- chlorine gas
5. Never open the cylindervalve unless the regulator is completely …

**a** – opened  **b**- closed **c**-removed **d**- all above

1. When a cylinder become an empty Remove the regulator and replace the cylinder ……
2. Cap  **b**- valve **c**- regulator **d**- none of these
3. …………… is the protection against accidents

**a**-Chemical security  **b**-chemical reaction **c**- chemical container **d**- chemical safety

1. Oxidizers and flammable gases should be stored in areas separated by at least 20 feet or by a -----
2. Plastic container **b**- plastic wall **c**- combustible wall **d**- non combustible wall
3. ­--- is the pressure that is exerted by a saturated vapor above its own liquid in a closed container.
4. Vapour pressure **d**- atmospheric pressure **c**- air pressure **d**- none of these
5. When a cylinder become an empty Remove the regulator and replace the cylinder ……

a-regulator  **b**- Cap **c**- valve **d**- none of these

1. the minimum temperature at which a liquid within a container gives off vapor of sufficient concentration in air that can ignite inthe presence of an ignition source called ….

a-Flammable liquid **b**-boiling point **c**- flash point **d**- none of these

1. There are three elements that must be present in order for a fire to result the components …

a- Ignition source **b**- fuel **c**-oxygen  **d**- all

1. Wear a laboratory------ to protect skin and clothing from chemicals

**a** – goggles  **b**- closed shoes **c**-lab coat **d**- all above

1. No part of a cylinder should be subjected to a temperature higher ---------

 **a**-100 oC  **b**-80 oC **c**- 50 oC **d**- 154 oC

1. ----- open a reagent container until the label has been read and completely understood.

**a** –always  **b**- ever **c**-never **d**- daily

1. ­ --------------- gases should be stored in areas separated.
2. Vapour pressure **b**- Oxidizers and flammable **c**- Oxidizers and combustible **d**- compressed and combustible

**Q4/ complete the following**

1. Chemicals can exist in many forms
2. hazards to be avoided when handling and storing compressed gases:
3. give 5 examples of highly toxic gases
4. Flammable and Combustible material classify in some categories.
5. There are few conflict between chemical safety and chemical security.
6. Categories of chemical hazards
7. hazards associated with compressed gases:
8. how to store class B hazardous material
9. how to set up and use compressed gas cylinder .
10. There are few conflict between chemical safety and chemical security.