

# Safety interview Question & Answer.

## 1. What is Safety?

It is a condition which gives you freedom from hazard, risk, accident which may cause injury, damage and loss to material or property damage and even death.

## 2. What is accident?

It is an unexpected or unplanned event which may or may not result in injury or damage or property loss or death.

## 3. What is injury?

It is defined as a harmful condition sustained by the body as a result of an accident.

## 4. What is hazard?

Inherent property of a substance or an occurrence which has potential to cause loss or damage property, person or environment.

## 5. What is risk?

In probability of the realization of potential for loss or damage or injury.

## 6. What is incident?

It is an event which represents deviation from the intended sequence of designed steps.

## 7. What is safety policy?

Any company has a social and legal obligation to provide a safe and health working environment to all his improvement to all his employees.

## 8. What is safety audit?

The safety audit is the process that identifies un-safe conditions and unsafe acts the plant and recommended safety improvement.

Walk through It evaluates the unsafe condition notice able to naked eye during work through the plant. (Stores, civil work, erection work)

Inter mediate-more details study and review of plant design and plant operation.

Comprehensive –It evaluates the safety factors in the plant on the base engineering, analysis, testing, and measurement.

## 9. What is safety tag?

Safety tag can be defined a surface made of card board or paper board on which English local languages letters written for warning safety instructions to employees.

## 10. What is safety programme?

Safety programme can be defined as five methods by which accident can be prevent easily they are engineering, education, enforcement, enthusiasm and example safety programmers are plain spoken and carry out certain legal steps.

## 11. What is attitude?

Attitude may be described as continuous behavior. If man's behavior is good, then his action will be either correct or safe.

## 12. What is emergency planning?

Emergency planning can defined as a control measure. It can control the accidents safe guard people and provide information to media.

## 13. What is work permit system?

Work permit system is a "written documents" for permission to undertake a job by area in charge or it is written document issued by the area in charge to the performer to undertake the specific job.

## 14. What is work at height?

Any work above 2 meters from ground is caused work at height.

**15. What is confined space?**

An area which is small and enclosed or an area where one entry and exits or where a man cannot work comfortable in any location is called confined space.

**16. What is excavation?**

Marking a hole or tunnel by digging the ground by man or machine is called excavation.

**17. What is scaffolding?**

It is a temporary platform constructed for supporting both men and materials and working safety at a construction site.

**18. What is welding?**

The process of joining of metals either by electrical or by gas is called welding.

**19. What is gas cutting?**

The process of joining of cutting metals by using oxygen and combustible gas is called gas cutting.

**20. What is sand blasting?**

The process of removing rust dust, dirt, scales and old prints from the old surface using compressed air is called sand blasting.

**21. What is painting?**

The process after sand blasting is called painting.

**22. What is LEL?**

The minimum concentration of vapor, gasses and dust in air below which propagation of flame does not occur on contact with a source of ignition is called LEL.

**23. What is UEL?**

The maximum proportion of vapor, gasses and dust in air above which proposal the flame does not occur on contact with a source of ignition is called UEL.

**24. What is manual handling?**

The process of lifting, carrying and stacking materials by men is called manual handling.

**25. What is housekeeping?**

House keeping means not only cleanness but also orderly arrangement of operations, tools, equipments storage facilities and suppliers.

**26. What is personal protective equipment?**

It is equipments used to protect the person from hazards such as dust, dirt, fumes and sparks etc. It is the barrier between hazard and person.

**27. What is grinding?**

Grinder is a portable machine with a wheel guard in position to reduce the danger.

**28. What is Crane?**

A tall machine used for moving heavy objects by suspending them from a projecting arm with hook.

**29. What is fork lift truck?**

Fork lift trucks are designed to handle heavy loads.

**30. What is JSA?**

The procedure of analyzing job for the specific purpose of finding the hazards and developing .

**31. What are the duties of a safety officer?**

Prepare tool box talk

Prepare monthly statistics

Prepare the checklist

Accident reports

Management meetings

Arrange the safety classes/training

Arrange monthly safety bulletin  
Inspection of fire extinguisher  
Arrange first aid training classes  
Arrange safety competitions like quiz, slogan, poster competitions exhibition etc.

**32. What are the duties of a supervisor?**

He has to instruct these workers about the work methods and procedures.  
He has to maintain discipline among the workers  
He has to supply necessary materials  
He has to control quality and cost of the job  
He has to guide the workers in doing a job in the correct and safe way  
He has to supply suitable personal protective equipment to his workers  
He should conduct periodical safety meetings.  
He should conduct safety inspection of his working area  
He should know about the fire fight equipments  
He should know to investigate the accident and find out the cause of accident

**33. What are the pre cautions for welding?**

1. Remove all combustion material from the place of welding
2. Clear the work area and cover wooden floor with fire proof mats. (Welding mechanic should be kept within the visibility of the welders.
3. Erect fire resistance screen around the work
4. All welding cables should be fully insulated
5. All welding mics shall be double earthed
6. Welding area should be dry and free from water
7. Keep the fire extinguisher / sand really
8. Use leather hand gloves, goggles and helmets
9. Switch off the power when welding is stopped
10. Do not allow the helper to do welding
11. Do not shift the welding cable unless the electric power is switched off.
12. Do not allow the helper to carry the welding. Terminal of the welding cables should be provided 3-cable with lugs and kept tight.
13. Oxygen hose in black and Acetylene hose in red in color as per standard
14. NRV of the blow torches should be maintained properly avoid back fire
15. Welders should be trained properly
16. Cylinders should be stored in a cold dry place away bottom heat and direct sunlight.
17. Proper housekeeping, good ventilation in the working area
18. Smoking should be avoided from welding area
19. Hose connection should be proper made
20. Barricade the work area and put a sign board
21. Rolling of cylinders should be avoided
22. Flash back arrestor should be attached in each cylinder
23. Any leakage of cylinder should be kept separately

**34. What is the precaution for gas cutting?**

1. Keep fire extinguisher nearby
2. Keep fire watch nearby
3. Remove all combustibile from work area
4. Use all necessary PPE
5. Never put welding gas cylinder inside a confined space
6. Hoses shall not be laid in path ways

7. Gas cutting torch should have flash back arrestors
8. Gas test to be done to check for presence of flammable gas in site.
9. Good housekeeping and ventilation necessary in working area.
10. Those connections should be made properly

**35. What is the precaution for “sandblasting”?**

1. Compressed airline, hoses and other fitting must installment firmly without leaks the hose.
2. Mix use compress are should be avoided
3. A fresh air hood or mask must be worn
4. Housekeeping can be done period carefully
5. Fire extinguisher shall be kept nearby
6. Dust mask ear plugs / muffs should be used
7. No sand blasting shall be done on top of floating roof tank in service.
8. Use goggles & face shield
9. Sand blasting operation must be gas free

**36. What is the precaution for “painting”?**

1. All flammable material should be cleared from the work area
2. The required protective clothing and equipment must be worn
3. Cartridge respirators shall always be worn
4. Adequate ventilation is necessary
5. Adequate washing facilities must be readily available
6. Barrier cream should be applied to the skin

**37. What are the hazards in welding?**

Eye injury  
Burn injury Arc realization  
Electrical shock Light arc radiation  
Heat, light and radiation effect Heat fume  
Poisonous gases Chipped price of weld metal  
Fire  
Explosion Scattering  
Noise Sparking  
Sparking  
Flying sand

**38. What are hazards and injuries in manual handling?**

1. Cutting fingers due to sharp edges
2. Burns due to handing of hot articles
3. Foot injuries due to dropped articles
4. Slipped disc due to improper posture in lifting on object
5. Strains to wrist or fingers
6. A sprain, wounds hernias, fractures

**39. Cause of accidents in manual handling?**

1. Improper lifting
2. Carrying too heavy loads
3. Improper gripping
4. Failure to use PPE
5. Lifting greasy, oily and irregular objects
6. Poor physique

**40. What precautions are needed to avoid accident in manhandling?**

1. Stand at safe distance from the load

2. Sharp edge and burns are removed before lifting a material.
3. PPE such as safety gloves and safety shoes are to be used.
4. If the weight is too heavy for one person to lift, then he has to seek the assistance.
5. The pathway is not blocked by obstacles while carrying the load.
6. The different actions, movements and forces necessary while carrying the load.
7. Modify the task by using hooks and crow bars.
8. Mechanical equipments like cranes shall be used.
9. Modify the objects
10. Change the way things are used.

**41. Tips for manual handling?**

1. Plan
2. Clear the path
3. Move in close to the load
4. Secure your grip
5. Hold your head upright
6. Maintain normal curves of the spine
7. Power the lift with legs and body weight
8. Don't twist

**42 Cause of accidents in mechanical handling?**

1. The sudden failure of wire rope or a chain
2. Slipping of the load from the sling
3. Swinging of the load at the time of lifting
4. The load sometimes hits the man

**43. What are the accidents in "poor housekeeping"?**

1. Men getting hit by falling from overhead
2. Men slipping as greasy, wet or dirty floor
3. Men falling in open tank without cover in level floor
4. Accidents due to poor lighting
5. Fire accidents due to faulty electrical wires

**44. What are the advantages in good housekeeping?**

1. It helps in the reduction of accidents including fire accidents
2. It saves the property damages
3. It improves employee moral
4. Better productivity
5. Working area is-come presentable
6. Human energy is conserved
7. Visitors are very much satisfied
8. The burden of supervisor is reduced

**45. How to care and maintenance of hand tools?**

1. Tools must be kept clean and free from corrosion
2. Keep metal parts lightly oiled
3. Remove burrs from edges of tools and heads of chisels.
4. Tools which are not in used must be stored separately
5. A good worker regularly inspects his tools
6. Do not use tools without handles

**46. How to prevent accidents of "power tools"?**

1. The operators should wear face shields or safety glasses
2. Power tools should be placed in the store room after use

3. Power tools should have protected by guards
4. Pneumatic hoses or electric cables of power tools should not pass through passage ways.
5. The electrical power tools should be properly earthed
6. Never horse play with hose of pneumatic tools
7. Power tools machines should be maintained and operated properly.

**47. What are the causes of accidents of “hard tools”?**

1. Due to wrong way using of tools.
2. Due to defective condition of tools
3. Due to failure of using right tools for right job
4. Due to wrong way of carrying tools
5. Due to strong of tools UN safety

**48 what precautions are necessary in electrical work?**

1. All electrical installations shall be as per Indian electricity rules
2. Only competent persons should handle the electrical equipments
3. The equipments should be earthed properly
4. All temporary electric lines should be drawn at least above man's height
5. Cable should be completely insulated
6. Cable should not have any joints
7. Only connection for one point
8. Good housekeeping on the area
9. Fire protection equipment to be kept nearby
10. Use rubber gloves and rubber boots
11. Use good quality of wire
12. Power isolation close to the job
13. Use three pin plugs instead of loose wire
14. Never operate any electrical equipment with wet hands
15. Never stand wet surface while working electrical equipments
16. During thunder storm do not stand under tree
17. Proper sign board is necessary
18. No person shall work on any live electrical conductor
19. The switch shall only be put on by person who switched it off

**49. What are the hazards in construction?**

1. Fall of person from top and getting injured
2. Fall of objects from top and below person injury
3. Fall of materials from top and damaged
4. Person fall into excavated pit
5. Collapse of soil and below person get injury or may
6. Damage of UG cables and sewage pipe
7. Collapse of scaffolding and person fall from height, get injury
8. Electrical shock
9. Fire and explosion
10. Burn injury
11. Health and lung problems
12. Snakes bite
13. Poisonous gas
14. Foreign body in eye

**50. Cause of accident in construction?**

1. Erection equipment failure

2. Falling of persons from height
3. Electrical shocks
4. Improper lighting
5. Non stop working by worker
6. Up safe work methods
7. Collapsing of earth during trench excavation
8. Failure of use safety equipment
9. Working a height without safety belt

**51 General safety precautions in construction?**

1. Adequate first aid equipment should be kept ready
2. Adequate firefighting equipment should be available
3. All general electrical rules should be followed
4. Suitable lighting arrangements should be necessary at night work
5. Work men at height should be wear safety belts
6. Work men handling cement should be provided with goggles, rubber gloves and rubber boots by nose mask.
7. The moving parts of grinding machines used construction site should be covered with guards
8. The moving parts of grinding machines used construction site should be covered with guards
9. Excavated material should not keep near the excavated
10. Very short duration of work red flags must be hoisted and more duration red banners must be stretched
11. Defective tools should not be used
12. The worker should not carry tools in his hands when climbing a ladder
13. Excavation should be guarded by suitable fencing

**52. How to erect scaffolding?**

1. It should be erected on levels firm ground
2. It erected by trained / skilled person
3. It is constructed using metal pipes and wooden boards
4. It should be design and constructed from good and sound material
5. Not to be erected on loose earth
6. Clamps should fix
7. Properly bracing
8. Sole plate is necessary the base of vertical pipe

**53. Safety precaution of scaffold?**

1. Wooden board not is painted
2. Wooden board should not to any cracks
3. Check for rust in pipes / clamps
4. Clamps should fixed and good quality
5. Board's thickness should be 3.4 cms and no bending
6. The construction must be rigid, properly based
7. Use of good and sound materials
8. The wooden bellies have not joints
9. Vertical poles should not be more than 6 feet
10. Chains, ropes used for the suspension of scaffoldings
11. Never throw any materials from height
12. Use safety harness while working at above 6 feet
13. Properly ties to be arrangement

**54 what control measures are necessary in confined space?**

1. Enter with air line BA sets
2. Use 24v flame proof hand lamps
3. A hole watches to be kept near man whole
4. Keep firefighting equipment ready
5. Gas test to be done to check for oxygen level
6. Provide blowers
7. Don't smoke in confined space
8. Use ropes and harness
9. The spaces clean before entry
10. Use non sparking tools if there is any risk of flammable vapors being present.

**55. Safety rules when using ladders?**

1. The foot wear is not greasy, oily and muddy and has a good grip on the rungs.
2. When climbing or coming down a ladder should be face the ladder side and had on with both hand.
3. Carry light tools in pockets in a shoulder bag.
4. Hold on with at least new hand if use of both hands then, use safety belt
5. Never climb higher than the third rung from the top on straight or second tiered from the top on extension ladder.
6. Step ladder must be fully open and the divider locked
7. Metal ladder shall not be used near electrical equipments.
8. Metal ladder shall not be place on firm footing and at angle of 75
9. Any ladder found defect in any way should be marked do not use
10. Ladder shall not be placed on a box or drum.
11. Rubber protection on head and heel of a ladder is necessary.

**56. Safety rules insuring oxygen cylinders?**

1. Oxygen cylinders should not be kept near combustibile materials.
2. Oxygen cylinders should not be handled with greasy hands or gloves.
3. Oxygen cylinders and their fittings should not be tested with oil based soap solution.
4. Oxygen cylinders and other combustibile gas cylinders should not be stored together.
5. The top cover of the cylinder should be kept in position and screwed safety when not in use.
6. Cylinders should not be used as rollers for moving materials
7. Oxygen must not be use for ventilating confined spaces.

**57. Safety rules in using compressed air?**

1. Only authorized persons should used compressed air.
2. The body or clothes should not be cleaned with compressed air.
3. Compressed air hose pipes should not be placed across passage ways
4. Leakage of compressed air should not be tested with hands.
5. While working with tools run by compressed air safety shoes are to be used.
6. The tools should not be kept on position when not in use.

**58. Handling of compressed gas cylinders?**

1. They are not to be dragged or dropped
2. They should be stored in dry and well ventilated places
3. Chins and slings should not be used for lifting cylinders.
4. The caps of the cylinders should not be removed when they are not the use.
5. Cylinders should not be stored near hot sources
6. Acetylene cylinders should not be stored horizontally



7. Empty cylinders and fully cylinders should be stored separately
8. Leakage cylinders removed to open space and release the gas without getting ignited.

**59. Storage of gas cylinders.**

1. Cylinders should store in a safe, dry and well ventilated store
2. Oxygen cylinders should be stored horizontally and acetylene cylinders shall be stored vertically.
3. The standing cylinders should be secured properly avoids falling.
4. Flammable gas shall be stored at least 50 feet away from another building
5. Oxygen cylinder shall never be stored necessary flammable gas cylinder
6. Empty cylinder shall be identified by marking with a chalk (MT) and checked for damage before returning to suppliers.
7. Cylinders should not be kept as supports.

**60. Give a brief note about crane and LE?**

1. Only authorized and competent person should operated cranes
2. The correct sling must be used for the load to be lifts
3. Lifting equipment must be certified from competent authority and mark with its SWL
4. Never be used for loads excess of its SWL
5. Cables and slings must be padded when passing over sharp edges of equipments
6. Check the condition of the ground before parking the crane and use out riggers
7. All moving parts must be guarded
8. Uncertified chains, ropes, slings and hooks should not be use
9. All slings to be inspected by third party inspectors
10. Never stand or work under a suspended load
11. Place the out riggers on firms ground
12. Guide ropes shall be used to control swing of lifted material
13. Never operate the crane at the time of speed wing
14. Lifting over live equipment should not be encouraged
15. The crane should undergo periodical maintenance as per manufactures

**61 Give brief note about fork lift truck?**

1. Check breaks, lift tilt and tires.
2. Check the stability of load before moving it
3. Never leave your fork lift truck un-attend with motor running
4. Never park fork lift truck on passage way
5. Never drive with wet or greasy hands
6. Always drive with a safe speed and slow down at turning point
7. When driving without load forks about 6 inches above the floor or ground
8. Never operate trunk in gaseous area
9. Never carry a load so high that you cannot head, If necessary operate truck in reverse
10. Avoid carrying lose materials on forks
11. Never allow one to go under elevated loads
12. Warn other employees to stand clear when staking or removing materials
13. Exhaust pipe should have flame arrestor
14. Fork should be lowered to the floor when the truck is unattended
15. Stay alert t all times

**62 Give a brief about grinding?**

1. Proper wheel shall be used as per the grinding M/c's specification
2. All the grinding M/c's shall be used with wheel guard
3. Grinding cables shall not mingle with welding cables

4. All the cables shall be protected from damage
5. Provide face shield with safety helmet
6. Never use fracture wheel
7. Excessive fighting of maintaining is dangerous
8. All guards should be in position before the machine operated
9. The speed of the grinding should match in the speeds of the grinding machines
10. Only skill person should be handling this work
11. Testing of wheel is necessary

**63 Describe about vehicles and plants?**

1. All vehicles requiring security vehicles pass
2. All drivers should have valid driving license
3. Drivers should not use fork lift trucks for carrying passengers
4. All traffic regulations and speed limit should be strictly followed inside the plant area
5. All vehicles area in a road worthy condition
6. Vehicles Park in the operation area must always unlock with in ignition key in position

**64 Precaution of excavation?**

1. Excavation area should be suitable barricade
2. Put sign boards lights and flags
3. Avoid heavy vehicle coming near the sides
4. PPE like helmet, safety shoes should be used
5. Keep the excavated soil at least 5 feet distance
6. Excavated sides should be sloped back to a safe angle
7. Hand excavation should be done at the present of UG pipes or cables place
8. Cutting shall be done from top to bottom
9. All narrow trenches 4 feet or more deep shall be supplied at least one ladder
10. While excavating on the slope on the slope whose height is over 10 feet men should use safety belts

**65 what are advantages of JSA? (Job safety Analysis)**

1. It helps to identify hazards and prevent accident
2. It helps to establish safe work method, working conditions and suitable plant safety rules
3. It helps to assess the safety training four heading can be used for JSA.
4. It helps to inspection the plant
  - a) Name of operation for JSA
  - b) Description of the operation
  - c) Hazards
  - d) Precautions

**66 what is tool box talk?**

1. Job related safety aspects
2. Job related hazards / risk
3. Control / preventive measure
4. Adequacy of PPE's / condition
5. Following safety rules / procedures
6. Safe work procedures / methods

**67 Describe different types of hazards?**

1. Mechanical hazards — in adequately guarded machines parts
2. Chemical hazards — of toxic gasses, vapors, fumes, smoke in dust.
3. Electrical hazards: in adequately insulated line wires
4. Fire hazards – chemical reaction, electrical Arcs

5. Radiation hazards – dazing light in framed rays' ultra violet rays

6. Pollution — water pollution & noise pollution

**68 what is inspection?**

1. Inspection means to find out hazards according to checklist prepared with reference to the department operations by the people who are familiar with the plant.

**69 Plant safety inspections by whom?**

Safety officer

By line management personal

By senior management personnel

First line supervisor

By maintenance engineers

By workers

By safety committee

By statutory authorities

**70 How many types inspection?**

There are 5 types inspection; pressures of boilers( supervisor)

1. Continuous inspection – select employees / operator

2. Periodical Inspection – material storage, fire fighting equipments, handling equipments

3. Intermittent inspection – UN announced inspection done by safety officer, safety committee.  
(Particular work spot)

4. Statutory inspection – storage area, location at height (cranes, ropes, chains, it my tackles inspection)

5. Special inspection – accident investigation

Inspection of new building, general lighting, use of PPE's etc. construction work.

**71 What is safety management?**

Safety management is an act and science of setting safety objectives of the industrial company.

**72 What is accident investigation?**

Accident investigation means to carry out immediately the occurrence of accident to find out real facts to avoid the future accident.

**73 What is accident statistics?**

It means to maintenance of accident details

**74 How to investigate an accident?**

Injured person's name, address, designation age

Exact place and types of hazards

Date, shift, time

To find out the causes/ reasons

To take correction action

Fact finding not fault finding

**75 How to report an accident?**

1. Date and time

2. Activity

3. What happened

4. Person involved

5. What went wrong

6. Causes

7. Corrective action suggested

8. Signature

9. Safety officer

10. Safety in charge

11. Project manager

**76 what is accident prevention?**

Accident prevention may be defined as an integrated programme and directed to control UN safe mechanical or physical condition.

**77 Role of management in industrial safety?**

1. A written safety policy be issued by the management's towards men, material and machines.
2. The safety policy should bring out the management's towards men, material machine.3
3. The safety policy should be circulated to top, middle and to workers
4. Management meeting should be in a position
5. Management should arrange for safety inspection (once in 3 months) and safety audit ( once in year) to be carried out.

**78 Give a brief note about safety policy?**

1. The safety and health of all employees is one of prime concerned of the company.
2. Every company will be requiring to the policy both in letter and in spirit.
3. the company shall comply straightly with act, laws, rules and regulations
4. The company shall impart raining in health safety and occupational health to all employees.
5. The company will adopt own safety and health standards where laws may not be available.

**79 Safety in the use of hand trucks?**

1. The truck should be inspected
2. The axles should be greased well
3. Safety shoes should be work by the operators.
4. The load should be balanced and the weight of the load should not fall on the axle
5. The hard cart should not be wider than the width of the hand truck.
6. The hard cart should be pushed and not pulled
7. The truck should not be placed on path ways.

**80 How many types of safety?**

There are three types of safety.

- a. Plant safety b. Workers safety 3. Consumer safety

**81. Human factors causing accidents?**

1. Carelessness
2. Fooling bout it
3. Hurrying to increase production
4. Laziness in housekeeping
5. Hurrying in Lunchtime
6. Lack of attention due to worry
7. Alcohol and drugs
8. Lack of skill and experience
9. Not using PPE

**82. How many steps in safety?**

There are 4 steps in safety

1. Policy
2. Implementation
3. Take advantages of factory act
4. Safe working conditions.

**83. Write causes of accidents?**

Direct cause: Unsafe act and unsafe condition.

Indirect Cause: 1. Lack of knowledge or skill

2. Improper attitude
3. Physical or mental deficiency

**84. Give some examples about unsafe act?**

1. Operating any equipment without properly authority
2. Failure to warning
3. Operating at unsafe speed
4. Failure to use PPE
5. Using hands instead of tools and equipment
6. Unsafe loading or placing or stacking
7. Unsafe position/ posture
8. Working on moving equipments
9. Wearing loose clothes while working on running machine
10. Working at height without safety belt

**85. Give some examples about un safe conditions?**

1. Un guarded machine/ equipment
2. Poor lighting
3. Narrow road
4. Improper stacking
5. Oil on floor
6. Unsafe ventilation
7. Unsafe defective construction
8. Defective condition of tools and equipment
9. Unsafe method or procedure
10. Bad housekeeping

**86. Write about accident sequence?**

A personal injury occurs only as the result of an accident.

An accident occurs only as the result of a unsafe action or un safe mechanical or physical conditions or both.

Unsafe action or unsafe condition or mechanical or physical condition exist only because of faulting the part of persons.

Fault of persons acquires from the environment and the causes for lack of knowledge or skills or improper attitude.

**87. Write a brief about classification of fire?**

They are mainly five types of fire.

Class A Fire: Wood, paper, clothes, rubbers etc.

Class B Fire: Oil, grease, paint, petroleum etc.

Class C Fire: Acetylene, ethane, methane etc.

Class D Fire: Sodium, magnesium, potassium etc.

Class E Fire: Electrical equipment etc.

**88. Write uses of extinguisher for purpose?**

1. Water type extinguisher – Class A fire (not be B & E)
2. Foam type extinguisher – Class B fire (S.B + A.S. = Co<sub>2</sub>)
3. Carbon dioxide extinguisher- Class C Fire
4. DCP Extinguisher – Class C, D or E

**89. What precaution are necessary for project of fires ?**

1. Buildings and plants shall be so laid out and roads, passage ways etc.
2. Doors and windows shall be located in suitable positions on all external walls of the building.
3. Smoking lighting or carrying matches are to be prohibited

4. Gas cylinders should not be stored near high flammable substances
5. Flammable liquids shall be stored in suitable containers with close fitting covers.
6. In every factory has to suitable firefighting equipment
7. All firefighting equipment shall be subjected to routine maintenance inspection and testing by proper trained persons.
8. Sufficient number of persons shall be trained in the proper handling of firefighting equipment.

**90. Precaution for burn person?**

1. If fire catches a single person's cloth; he should immediately roll on the floor.
2. No lotion of any kind should be applied on the burn area
3. In case of burns due to corrosive chemicals, the burn parts should be flooded with water
4. The burn area should be covered with dry sterile dressing
5. Physical shock of the person is treated by giving him weak tea or coffee
6. In major cases the patient should be sent to hospital as quickly as possible

**91. Factory act?**

Sec.'6' Registration of a factory

Sec.'11' Cleanliness

Sec.'13' Ventilation and temperature

Sec.'17' Lighting

Sec.'18,19' Drinking water and sanitary

Sec.'23' Employment of young person on dangerous mechanical

Sec.'28' Hoist and lifts

Sec.'29' Lifting machines and tackles

Sec.'35' protection of eyes

Sec.'36' Precaution against danger fumes

Sec.'36(A)' Use of portable electric light

Sec.'38' Protection in case of fire

Sec.'40(A)' Maintenance of building

Sec.'40(B)' Safety officers duty

Sec.'45' First aid boxes

Sec.'111' Obligation of workers

**92. Personal protective equipments? P.P.E**

1. Head protection – Hard hat, cap, and helmet  
Made – aluminum, PVC, fiber glass, Plastic  
Protect – heal, spark, danger materials
2. Face and eye protection – Spectacles, Welding goggles, face shield  
Protect – flying particles, radiation
3. Hand protection – Gloves, hand pads  
Made – leather, rubber, PVC, asbestos  
Protect – acid, oil grease, pure Alex rubber gloves electrical
4. Foot and leg protection – Safety shoes, gum boots, foot leg guard  
made – Metal, leather, rubber  
Project – falling materials and electrical work
5. Body protection – Apron, hood, coverall, jacket  
Made rubber, leather canvas, lead, PVC asbestos  
Asbestos hood – Fire fighting  
Rubber, PVC full suit – ( Corrosively liquid, fumes, vapor  
Safety belts – work exceeds 3 Mtr
6. Ear production – earmuff – noise – 30 – 135DB

7. Ear plug – 115 – 120 DB

**93. What is safety management?**

Safety management is an art and science of setting safety objectives of the Industrial company and related activities of planning, administration, Improving, Various functions to achieve the safety objectives.

**94. What are the objectives of safety management?**

1. Taking care of workers and staff in the event of an accident
2. Providing health full environment and surrounding
3. Welfare
4. Continuous vigil and improvement

**95. How many types of PPE?**

There are two types of PPE

1. Respiratory

2. Non respiratory

Respiratory — Air supplied— Air purified

Air supplied — Compressed air breathing apparatus set

Air purified — Canisters gas mask-Chemical cartridges respirator– Surgical cotton mask

Dust filter mask (dust respirator)

**96. How many types work permit?**

There are two types of work permit

1. Cold work permits

2. Hot work permit

**The hot work permit further classified into 3 types**

Normal hot work permit

Blanket hot work permit

Delegate hot work permit

**97. What is blanket permit?**

A blanket permit is a permit issued on the basis of location where the multiple jobs are to be carried out at safe location.

**98. What is delegated work permit?**

Delegated work permit used for areas requiring light control. Ex: Fabrication, yards – valid – 30 days

**99. How many types of accidents?**

There are 4 types of accidents

1. Near miss accident – escape

2. No lost time reported 48hrs. Before

3. Los time – reported 48hrs. After

4. Fatal – Death

**100. Heinrich accident ratio?**

Major injury

Minor injury

No injury

**Bird accident ratio?**

Serious

Minor

Property damages

No visible injury

**101. How to control risk?**

The risk is control by following process they are eliminate, replace, reduce, control and PPE.

**102. What are the hazards in chemical safety?**

1. Danger due to fire/ explosion
2. Danger due to toxicity

**103. How to control the chemical hazards?**

The chemical hazards are control by engineering method, administrative method and PPE.

**104. Give a brief note about act related with session?**

The factory Act – 1948 Petroleum Act – 1934

The mines Act – 1952 Water Act – 1974

Automatic energy Act – 1962 Air Act – 1948

Railways Act – 1890

Indian electricity Act – 1910

Indian boilers Act – 1884

Workmen compensation Act – 1948

Employee's state insurance Act – 1948

**105. What is first aid?**

Firs aid is temporary and immediate care given to the victim of an accident.

**106. What are the hazards in petroleum industry?**

1. Fire, 2. Explosion, 3. General hazards, 4. Frostbite

**107. How to control the petroleum hazards**

1. Proper design, operation and maintenance
2. Avoid leakage
3. Steel pressure cylinder
4. Vapor release is to be directed away from heat sources
5. Wear goggles and SCBA sets

**108. What are the causes of industrial accidents?**

1. Inadequate skill, improper supervision etc.
2. Rapid industrialization
3. Expansion of existing factories
4. Setting up new industries involving hazards not known earlier

**109. What are the responsibilities for workers for safety?**

1. Report unsafe condition to supervisor
2. Do not operate the machine without knowing the operation
3. Before starting the machine, whether the machine is in condition not
4. Use correct tools
5. Follow the safety rules
6. Always do not horse play
7. Do not lift over load
8. Do not chit on at with others

**110. What general precautions are necessary while driving?**

1. Follow all traffic rules, signs and signals
2. Do not exceed the speed limit
3. Take ten minute break after every 2 hours on long driving
4. Drive in correct gear
5. Keep both hands on steering wheel
6. Do not drives if you are not feeling well or feting sleep
7. Slow down while passing junctions, corners, crowded places and parking



**111. What are causes of road accident?**

1. Not following defensive driving techniques
2. Not observing lane discipline
3. Overtaking on turns or from wrong side
4. Not obey traffic signals
5. Poor road condition
6. Poor maintained vehicle

**112. What are belongs to road safety?**

1. The speed limits displayed along the road should be strictly
2. Short cuts and cutting across the corners should be avoiding
3. Nobody should try to cross the level crossing when drop gates are closed
4. Signal given blocking the road 'stop' look, listen and proceed should be followed.

**113. What is factory act?**

The factory act is a social enactment to achieve social reform and given liberal construction to achieve legislative.

**114. What are main provisions in the factory act?**

Health, safety, welfare, hours of work, employment, person, occupational disease, special provision and penalties and procedures.

**115. What the advantages of ventilation**

1. It helps to reduce the chances of fire or explosion
2. It protects the occupational diseases
3. It provides comfort to the workmen

**116. What the role of government in industrial safety?**

The Govt. responsible for protection workers, consumers from dangers at work, on the road, in the air in the water, from air and water pollution etc.

**117. How does the workers health influence?**

The workers health influences by occupational factors – physical, chemical, biological, social. Non occupational factors – food, cloth, water, housing, smoking & alcohol etc.

**118. How is audit conducted?**

1. Preliminary visit and understanding the factory
2. Identify the audit element
3. Prepare the questionnaire
4. Get the reply from the company
5. Discussion with management, executives & workers.
6. Cross Verification at site
7. Preparation of report.

**119 What are the procedures for work permit?**

3 copies of the permit

At the work site.

In the permit file

On the permit board.

**120. How many types of appliance**

1. Safety appliance for PPE
2. Safety appliance for general protection

**121. What are causes of accident of working at height (Personal)?**

- a. Lack of knowledge and skill
- b. over work
- c. Feeling of dizziness

- d. Non usage of PPEs like safety belt
- e. Unsafe platform (Not covered having floor openings)
- f. Improper erecting
- g. Unlearning work at height

**122. Control measure of work at height?**

- i. Use safety belt with proper anchoring above head.
  - ii. Special training must be given before starting the job.
  - iii. All scaffolds must be erected by skill persons.
  - iv. No work after sun set
  - v. Every platform should free from unnecessary obstruction
- VI. Grease, mud, paint removed from working platform

**123. What is earthing?**

Earthing means connecting the natural point of the supply system to the general mass of the earth by line.

**124. What is ELCB?**

It is protection of living beings under electro charging by fast isolation from the live conductor to avoid permanent disability or death.

**125. Precaution for electric shock**

Use dry hard gloves & rubber sole, safety boots, gum boots  
 the electric holder must be fully insulated  
 Proper protection for the body  
 during chipping of slag use white goggles

**126. What is term card**

it is legal requirements in case of emergency in violin vehicles carrying hazards substance.

**127. What are audit elements**

OS & H policy, educational training, safety manual and rules, new equipments, safety inspection, machine guarding, material handling safe operating procedures noise.

**128. What are five rules of forth job**

1. Select the right ladders forth job
2. Inspect ladder before you see it
3. Setup the ladder with care
4. Climb in carefully
5. Use safe practices

**129. What are 4 Ps**

Procedure – Rules, regulation  
 Protective gear – PPE  
 Promotional aspects – Competitions, rewards  
 Publicity – Bulleting, posters

**130? How many types of sign boards**

Mandatory  
 Information  
 Fire or explosion  
 Caution  
 Warning

**131. What is TWA? – for 8 Hrs. exposure per day**

It is define as the limit of air bone concentration of substances under which personnel may be exposed for 8 hrs. Per day without any adverse effect.

**132. What is STEL 0 for 15 minutes continuous exposure**

It is considered as maximum allowable concentration not to be exceeded at any time during 15 minutes continuous exposure period.

It is a maximum concentration to which workers or can be exposed to a period of 15 minutes continuously without suffering from irritation.

**133. What are the duties of a factory inspector?**

He takes up the license and registration of factories

He also verifies the documents related to factory workers

He suggests suitable and welfare measures

**134. What are welfare measures of factory act?**

Adequate and suitable washing facilities should be provided

Facilities for sitting during rest hours should be provided

If more than 250 workers are employed in a factory a canteen facility shall be provided.

Shelters rest rooms and drinking water shall be provided.

Welfare officer shall be employed where more than 50 workers are working.

**135. What is safety inventory system?**

It is a safety data collecting technique and carried out to promote full employee co-operation condition in the implementation of the company's safety surveys.

**136. What are safety surveys?**

Safety surveys are made to have detailed observations of all types of unsafe physical and environment conditions as well as unsafe practices committed to the health and comfort of workers.

**137. What is industrial hygiene?**

Industrial hygiene is defined as the art and science of the presentation and improvement of the health and comfort of workers.

**138. What belongs to UN hygienic working environment?**

Presence of toxic,  
high temp.

Excessive noise

Emission of radiation

improper lighting

improper ventilation

Process involving handling of poisonous.

**139. What is ingestion?**

Entry of harmful materials through mouth is called ingestion

**140. What is inhalation?**

Entry of harmful materials through mouth is called ingestion

**141. What are the four legs of fire safety?**

Fire protection

Fire prevention

Quantity control

Preventive Maintenance

**142. What are the important points to be observed for fire prevention?**

Good housekeeping

No smoking

Use of fire resistant paint

Electrical safety

Fire check doors

naked flame safety

Separate storage of hazardous chemicals

**143. Safety Triangle – Green?**

Safety day – 4th March

Fire Day – 14th April

Hot Work – Red or pink

Cold Work – Green

Confined – Blue

Radiography – Yellow

Water type extinguisher –Yellow

Foam type extinguisher – Cream (green)

Co2 extinguisher- Black

DCP extinguisher -Blue

**144. What is lathe?**

Lathe is an equipment use for cutting, threading, milling or facing etc.

**145. What is Noise?**

Unwanted sound which causes irritation to the ears caused by mechanical movement.

**146. What is respiration?**

The process of inhaling fresh air and exhaling, to entering a confined place is called respiration.

**147. What is hot work permit?**

Any work which involves spark flame, temperature is called HWP

**148. What is cold work permit?**

Any work which does not involve production of spark flame, heat, and temp. Is called

**149. What is radiography?**

It is conducted to check the welding joints for any blow holes defects through x-ray.

**150. What are vehicles / Mobile permit?**

The permit is required for taking any vehicle or mobile equipments having a diesel engine or having a diesel or petrol operated engine into a hazardous area.

**151. What are risks in vehicle permit?**

1. Sparks, 2. Accidents 3. Pollution

**152. Control measures of vehicles permit?**

Fitted spark arrester

Speed 30 km. /hours

Proper warning lights

No over load

correct parking

Pollution check

3rd party inspection

**153. Control measures of radiography?**

Barricade the area

Remove all unnecessary persons away from site

Check radiation level with dosimeter

Use lead shields

Put a sign board

Risk tissue damaged

Use special filter glass

Use lead coated apron

**154. ISI No Of safety device.**

1. Flash Back Arrestor:11006

2. Breathing Apparatus:10245
3. Life Jacket:6685
4. Industrial safety Helmet:2925
5. All portable type Fire Extinguisher:15683
6. Fire Hydrant:5290
7. Fire Hose:8423
8. Short Branch pipe:903
9. Classification Of Fire:2190-1979
10. Industrial safety Nets:11057

**155. Which Material burning in 'D' Class Fire?**

1. Aluminum (Al)
2. Magnesium (Mg)
3. Zink (Zn)
4. Potassium (K)
5. Sodium (Na)

**156. Full Form:**

1. M.C.P:- Manual Call Point
2. F.H:- Fire Hydrant/Fire Hose
3. P.P.E:- Personnel Protective Equipments
4. A.F.F.F:- Aqueous Film Formic Foam
5. N.B.C:- National Building Code
6. C.P.C.B:- Central Pollution Control Board
7. C.F.T:- Crash Fire Tender
8. S.B:- Safety Belt
9. T.B.T:-Tool Box Talk Meeting
10. S.I:- Safety Induction
11. E.L.C.B:- Earth Leakage Circuit Breaker

**SAFETY FIRST~~~!!!!**

**GOOD LUCK!!!!**

**Lade Devidas**  
**H.O.D (Fire & Safety)**