secure. Separate storage for dirty work clothing may be necessary to prevent cross-contamination.

Resting and eating facilities –
access to suitable rest areas where workers can take abreak fro m work. Such areas should have sufficient seating and be away from hazardous work areas, allowing workers to remove PPE and relax. Eating facilities should be provided so that food can be eaten in a hygienic environment. If hot
food isnot provided at work then basic facilities might be provided so workers can make theirown hot drinks and food.

2. **Identify** *prevention strategies* an organization could consider to r educe the risk violence

towards workers. (8)

- Collecting and analyzing incident reports.
- Interviewing staff formally or informally.
- Staff surveys.
- Zero tolerance policy and prosecution of offenders.
- Security staff.
- CCTV cameras.
- Security doors between public areas and staff areas.
- Minimize queues and waiting times.

- Care should be taken to avoid overheads when the tower is moved.
- Outriggers should be used where necessary to ensure stability.
- People should not climb up the outside of the tower.

▪ Tower must be built by trained workers.

2. Repair work is to be carried out on the roof of a school.

i. **Identify** control measures to reduce the risks to roofworkers. (6)

▪ Fragile roofs should be clearly signed.
▪ The safe working method for fragile roofs is usually by the use of roof laddersor crawling boards.
▪ These are laid across the roof surface, supported by the underlying load-bearing roof members, and distribute the load of the worker over a wide area, enabling the r oofstructure to sustain the load safely.
▪ Access equipment must be maintained correctly to ensure stability. This must becarried out by a competent person and is often subject to statutory requirements,e.g. inspection frequencies.
▪ Personal protective equipment, such as harnesses and helmets.
▪ Health condition of the individuals

ii. **Identify TWO** control measures to reduce the risks to otherpersons. (2)

▪ Construction sites almost always have a risk of falling objects so the y should bemandatory hard hat areas.
▪ Collective protection systems, such as safety nets and air bags.
▪ Warning signs
▪ Barricade the area

3. **Identify** why accidents may occur in staircase1 (6)

▪ Poor lighting

- Not using hand rails
- Not following rules(eg. Running)
- Improper footwear
- Spillages
- Insufficient treads and risers
- Slippery surfaces

11. Identify the factors to consider when assessing the adequacy o f lighting within an open planoffice. (page no: 1-2)

- Natural light should be used in preference to artificial light.
- Light levels should be adjusted to suit the level of detail required an d the visual acuity of theworkers.
- Local lighting, such as spotlights positioned above machinery, might be required to givehigher levels of light on critical areas.
- Lighting must be arranged to avoid reflections and glare that might dazzle or temporarilydisable.
- Lighting must be arranged to avoid the creation of shadows that mig ht obscure areas andcreate risk.
- Flickering should be avoided to prevent nuisance and in particular t he "stroboscopic effect".
- Lighting must be suitable for the environment (e.g. intrinsically safe lighting used in aflammable atmosphere).

12. List eight design features or safe practices intended to reduce the risk of accidents on staircases used as internal pedestrian router within work premises

- Adequate width
- Provision of handrails
- Dimensions of treads and risers.
- Provision of landings.
- Provisions for disables persons.
- Possibility of using a lift as an alternative.
- Avoid the need to carry large or heavy items up or down stairs
- Appropriate footwear – low heels.
- Provision of non slip surfaces.

- Arrangements for workers to have access to rehabilitation and treat ment programmes ifthey admit to having a problem.
- Disciplinary procedures for workers, who refuse assistance, refuse t o be tested or who fail atest.
- Provision of information, instruction and training to workers, super visors and managers.

15. **Identify** ways in which accidents may be prevented when using portable ladders as ameans of access. (page no: 1-26)

- Site on a solid, flat base so that the feet do not sink into the ground. Weightshould only be supported on the styles, never on the rungs.
- Angle of the ladder should ideally be 75° to the horizontal or at a ratio of 1:4 distance away from the wall to height (1 out: 4 up).
- Top of the ladder must rest against a solid support.
- Ideally the ladder should be secured at the top.
- Do not site or handle near live overheads.
- If this is not possible, then guy ropes should be attached and secured to firm supports.
- If this is not possible, ladder should be "footed" by someone standing on the bottom rung.
- Top of the ladder should extend far enough above the level of the working position orthe platform onto which it provides access to provide a safe handhold. The stepping off point should be safe and clear.
- Only one person should climb on the ladder at any one time.
- Nothing should be carried in the hands while climbing, so that bot h hands are freeto grasp the styles.
- Wooden ladders should not be painted as this can hide defects.

18) a) Identify the issues that should be considered to help ensure that a new item of work equipment is suitable for use. (5)

- Tools and parts are only used for their intended purpose, within thei r designspecification (e.g. the maximum speed of a cutting disc

speed, or climb onto the top of a road tanker to close hatches. Both of these operations involve work at height.

Coupling –

when vehicles are attached to trailers or other towed equipment t here ispotential for collision and crushing.

Maintenance work –

when mechanics have to access various parts of the vehicle and may have to work at height or under the vehicle.

8) Mobile tower scaffolds should be used on stable, level ground.

Outline additional factors that should be considered for the use of a mobile towerscaffold. (8)

- Never overload the mobile tower scaffold during work.
- Ensure that outriggers are utilized at all times.
- All the mobile tower should have guard rails fitted.
- Ensure the wheels are chocked before allowing any personnel to wo rk on board.
- Only competent and trained personnel to erect the tower.
- Do not allow anybody to work on top while we move the mobile tow er scaffold.
- Never work under overhead lines.
- Climbing through outside should not be permitted.

9) A new vehicle route is to be provided into the goods delivery area of workplace.

Outline features of the vehicle route that could reduce the risk of p edestrians beinginjured by vehicles.

(8)

- Be alert for cracks or crevices -
  Sparks and slag can travel long distances.
- Provide fire extinguishing equipment - Be prepared to put out fires. Service-able fire extinguishers, fire hoses, or sand buckets should be on hand.
- Consider the need for a fire watcher - Operators may not become aware of a fire starting while welding or cutting.
- Know the local fire codes for welding and cutting.
- Inspect the work area after completing operations - Make sure there are no hot sparks or hot metal which could start a fire later.
- Before welding or cutting in a new location for the first time, please do the risk assessment. They may know of some serious fire hazard that might otherwise be overlooked.

4. **Outline** control measures to reduce the risk to workers when usi ng non-powered hand tools.

- Tools must be suitable for the task that they are going to perform and for the environment in which they are to be used, e.g. non-sparking tools (do not produce sparks when struck) is suitable for us ein a potentially flammable atmosphere.
- Users should be given appropriate information, instruction and train ing. Many workers serve some form of apprenticeship or spend several years in training where they acquire an understanding of safety in the use of the tools for their trade, but not all workers come to the workplace with this knowledge (which may seem like common knowledge to others).
- Tools should be visually inspected routinely before use to ensure the y are in an acceptable condition. This should be done by the user. Spot checks by line management will ensure that users comply. Substandard tools should be maintained or discarded.
- Tools should be maintained in a safe condition, e.g. blades should ke pt sharp and handles firmly attached.

(b) **Outline** control measures that can be used to reduce the risks of injury to operators of a cement mixer.

- Location of the mixer on firm, level ground.
- Location away from traffic or where traffic is controlled.
- Fixed guards to motor and drive mechanism.
- Routine inspection and portable appliance testing, and use of residual current device (RCD) for electrically powered equip
- Safe storage of petrol and control of ignition sources for petrol-powered equipment; avoid use in confined spaces due to emission of exhaust gases.
- Reduction in manual handling or positioning of cement bags close to the equipment.
- Use restricted to trained operators only.
- Hand protection, respiratory protection, overalls and eye protection (splash resistant).
- Hearing protection to reduce noise exposure.

10. **Outline** four control measures to reduce the risk of injury from pedestal drill

- Fixed guards over motor and drive mechanisms.
- Adjustable (possibly interlocked) guard over chuck and drill bit.
- Clamp to secure workpiece to base.
- Eye protection (impact resistant).
- Hearing protection may be necessary.
- Routine maintenance, including inspection and portable appliance testing for electrical safety.

b. Identify health risk which could be associated with the wood dust. (4)

- Dermatitis
- Allergic respiratory effects
- Mucosal
- Non-allergic respiratory effects

c. Outline control measures which could reduce the risk from the wood dust. (12)

- Installing Local Exhaust Ventilation
- Provide Respiratory Protective Equipment
- Provide other Personal Protective Equipment
- Good standards of Housekeeping
- Vacuum cleaning equipment should be maintained properly
- Washing facilities for workers
- Separate storage for workers clothing and laundering
- High standard of personal hygiene by changing overalls and washing hands before eating and drinking.

13) a) Identify FOUR hazards associated with the use of photocopiers. (4)

- Drawing in and entanglement from contact with moving parts.
- Electricity.
- Contact with hot parts.