

ELEMENT 1: HEALTH & SAFETY FOUNDATION

Q.1. Question

a. Explain the difference between the objectives of a criminal law system and a civil law system. **(2)**

Ans. The objective of a criminal law system is to punish anyone who breaches the requirements of that law, whereas the objective of a civil law system is to determine appropriate recompense for a wronged or injured party.

b. Outline the THREE standard conditions that are usually required to be met to prove a case of negligence against an employer. **(6)**

Ans. 1. Firstly, it is necessary to show that the employer owed the injured party a duty of care.
2. Secondly, it needs to be demonstrated that the employer's duty of care towards the injured person was not fulfilled to the required standard i.e. that the employer had breached their duty of care.
3. Thirdly, the injury, loss or harm needs to be shown to be a direct result of the employer's breach of duty of care.

c. Outline the typical actions that might be brought against an employer who has breached criminal law in relation to health and safety. **(6)**

Ans. Typical actions that might be brought against an employer who has breached criminal law in relation to health and safety include:

1. Providing health and safety advice and guidance to the employer to help him rectify the breach. This will usually be in writing so it can be followed up.
2. Issuing legal mandates for the employer to make specified improvements to rectify the breach.
3. Issuing legal mandates demanding that work in dangerous situations or with dangerous equipment is stopped until it is made safe.
4. Taking out a prosecution against the employer with the intended result of punishment, typically as fines or orders, but may include imprisonment.

d. Explain why health and safety legislation might be enforced to different standards in different countries. **(6)**

Ans.

1. Health and safety legislation might be enforced to different standards in different countries for a variety of reasons.
2. There may be differences in the health and safety legislation itself, which forms the basis against which enforcement action is taken. For example, the fundamental difference between prescriptive law and goal-setting law.
3. Even with a similar style of legislation, enforcement may vary due to factors within the enforcing authority and its staff. The authority may not have robust systems in place to adequately collect and analyse the workplace accidents, incidents and ill-health that do occur, which would identify accident 'hot-spots' which can be targeted by the enforcement programme.
4. Alternatively, the authority may not be adequately monitoring the enforcement actions that take place to ensure they are being made in a consistent manner.
5. Additionally, there may be differences in the ability and knowledge of the enforcing staff, especially where they have to work in widely different industrial settings.
6. Finally, the legal system may specify different levels of penalty for a particular health and safety offence, and this might be influenced by cultural issues, i.e. how a particular offence is viewed in society generally.

Q.2. Outline the key elements of an effective health and safety management system. (8)

Answer:

1. A clear organizational health and safety policy which sets out the arrangements for managing health and safety.
2. The organization of staff for managing health and safety in terms of appropriate expertise / competence and communication channels.

3. The planning of specific mechanisms for health and safety, such as the risk assessment process and the incident reporting system, to ensure compliance with legislation and other standards.
4. The implementation of the planned systems, including the provision of the necessary resources.
5. Checking (or measuring / monitoring) that the systems implemented are working to the required standard.
6. An audit / review by management of the effectiveness of their health and safety management system.
7. The importance of clear, measurable (SMART) objectives in the planning and monitoring of health and safety performance.
8. The use of both reactive and active (pro-active) monitoring techniques.

Q.3. State Four possible direct and Four possible indirect costs to an organisation following a serious accident at work. (8)

Answer:

Direct Costs:

- Lost production
- Staff absence
- Repair of damaged plant & equipment
- Damage to products
- An increase in insurance premiums
- fines & uninsured costs arising from legal action, criminal or civil, including legal costs

Indirect Costs:

- In the investigation of the accident & the preparation of the necessary reports
- The temporary replacement or re-training of staff
- The possible loss of goodwill or business image
- the detrimental effect on employee morale that may result in reduced efficiency

Q.4. Replacement & retraining of staff is a cost that an organization may face following a workplace accident (Or)

Replacement or repair of damaged plant & equipment is a cost that an organisation may face following a workplace accident

a. List Eight other possible costs to an organisation when an employee has been seriously injured in such an accident. (8)

(Or)

List Eight other possible costs to an organisation following a workplace accident (8)

Answer:

- Lost production
- Staff absence & temporary replacement
- Repair of damaged plant & equipment
- Damage to products
- Investigation & remedial action
- additional administration incurred
- An increase in insurance premiums
- Fines & damages awarded & court & other legal representation

5. Outline the practical control measures by which a manager could involve employees in the improvement of health & safety in the workplace. (8)

Answer:

- Involving employees in risk assessments
- Accident investigations
- & the development of safe systems & procedures
- Encouraging hazard-spotting & the reporting of defects
- Setting up suggestion schemes
- Organizing training courses & information programmes
- Supporting active involvement in safety committee meetings
- Being accompanied by employees or their representatives on safety tours & inspections
- & giving employees responsibilities for mentoring young & inexperienced workers.

6. Outline the factors that might contribute towards a positive safety culture within an organization. (8)

(Or)

Outline ways in which the health & safety culture of an organization might be improved (8)

Answer:

- A clear policy with health & safety being given obvious equal priority to other business objectives (production, quality, etc)
- The setting of realistic & achievable targets
- The provision of a good working environment
- Pro-active monitoring of health & safety standards
- Effective communication channels
- A “no-blame” culture
- & consultation with, & the involvement of, the workforce.

7. a. Draw a flowchart to identify the main components of the health & safety management system described in the HSE publication “Successful Health & Safety Management” (HSG 65). (4) (Or)

Draw a flowchart to show the relationship between the 6 elements of the H&S management system model in HSE’s “Successful H&S management” (HSG65).

Answer:



7. b. Outline Two components of the Health & Safety Management System identified in (a) (4)

Answer:

Policy & Organization:

- Organisations to set clear aims & objectives &, in the latter, to allocate specific responsibilities for health & safety.

Planning & Implementation:

- Assess risks & to devise safe systems of work, &, in “measuring performance”, to the use of active & reactive monitoring

Q.8. A health & safety audit of an organisation has identified a general lack of compliance with procedures.

a. Described the possible reasons for procedures not being followed. (10)

Answer:

- Inadequate supervision & enforcement of the procedures by management
- A poor attitude towards health & safety generally (as an indication of a poor safety culture)
- & issued relating to working conditions that may hinder compliance with procedures (such as poor workstation design & inattention to ergonomic issues)
- The procedures themselves being unrealistic or unclear.
- Literacy & language issues.
- Peer pressure & other pressures or incentives to cut corners.
- A failure by management to consult the workforce & to provide the necessary information & training.
- & the repetitive, tedious or complex nature of the tasks being performed.

b. Outline the practical measures that could be taken to motivate employees to comply with health & safety procedures (10)

- A display of commitment on the part of management.
- The provision of a good working environment.
- Joint consultation & the involvement of employees in drawing up & reviewing the procedures.
- The setting of personal performance targets with due recognition when these are achieved.
- The provision of information & training including tool-box talks & the use of posters & notice-boards.
- The introduction of job rotation.

- & finally, the taking of disciplinary action in cases where there is a deliberate failure to follow laid down procedures.

Q.9. a. Outline the purpose of employer's liability insurance. (2)

Answer:

1. The purpose of employer's liability insurance is to satisfy legal requirements for employers to carry such insurance
2. So that an employee who is harmed due to the fault of his/her employer is assured of receiving compensation that the employer might otherwise have insufficient resources to pay.

Q.9 b. Outline Six costs of a workplace accident that might be uninsured (6)

- Production delays
- Damaged goods & equipment
- Accident investigation
- Loss of expertise or experience, hiring & training replacement staff
- Loss of goodwill & reputation
- Clean-up operations
- & possible fines & associated legal costs
- HSE research shows the uninsured costs generally far exceed insured costs

Q.10. a. **Outline** the main components of a health & safety management system. (8)

(Or)

Outline the part that **EACH** element of the HSG 65 model plays within the H&S management system. (12)

Answer:

- It starts with establishing a policy that states management's intention & sets clear aims, objectives & targets
- This is followed by organizing for safety by allocating responsibilities & establishing effective communication & commitment at all levels established
- The next stage involves planning & implementing, where practical plans are developed to meet the objectives & effective control measures introduced based on risk assessment
- Proactive & reactive monitoring systems should be introduced to measure performance in health & safety a system of review established to evaluate the performance against the objectives & targets, to consider options for improvement & to reset targets
- The review would be reinforced by an independent & structured audit of all parts of the system, which would assess compliance with H&S management procedures & identify where existing standards are inadequate or deficient

Q.10 b. **Outline** the economic benefits that an organization may obtain by implementing a successful H&S management system (4)

Answer:

- Increased productivity with improved moral & a reduction in downtime
- An improvement in product quality & reduced wastage
- A reduction in the costs associated with accidents
- Reduced insurance premiums
- An enhance corporate image
- & lower staff turnover involving a reduction in recruitment & training costs

Q.11. **Outline** reasons for maintaining good standards of health & safety within an organization (8)

Answer:

- Moral, Economic & legal arguments for maintaining good standards of health & safety within an organization.
- The moral argument centers on
- The need to provide a reasonable standard of care
- & to reduce the injuries, pain & suffering caused to employees by accidents & ill-health
- While legal arguments are concerned with the desire to avoid enforcement action & civil claims
- Economic benefits include
- A more motivated workforce resulting in increased production rates
- The avoidance of direct costs associated with accidents (e.g. downtime, administrative, investigation & first-aid costs, repair of plant & equipment, employing & training of staff, etc)
- Possibly cheaper insurance premiums
- The avoidance of costs associated with legal action
- & maintaining the image & reputation of the organization with its various stakeholders

Q.12. **Outline** the key areas that should be addressed in the “arrangements” section of a health & safety policy document. (8)

Answer:

- Carrying out risk assessments
- Controlling exposure to specific hazards (e.g.
- Noise
- Radiation
- Hazardous substances
- Manual handling, etc
- Unsafe conditions
- Controlling contractors
- Ensuring the safety of visitors
- Maintenance
- The provision of welfare facilities
- Dealing with emergencies
- Training
- Consultation with employees
- & environmental control including dealing with waste, to name a few

Q.13. a. **Explain** why it is important for an organisation to set targets in terms of its health & safety performance. (2)

Answer:

- Importance of targets in motivating staff by providing them with something tangible to aim for or the important part they can play in facilitating the measurement & review of performance.

Q.13. b. **Outline Six** types of targets that an organisation might typically set in relation to health & safety (6)

Answer:

- Improved audit scores
- A reduction in the number of civil claims
- An increase in the reporting of near miss incidents or minor accidents
- An increase in the number of employees trained in H&S
- & the achievement of a health & safety Standard (e.g. OHSAS 18001).

ELEMENT 2: SETTING POLICY FOR HEALTH & SAFETY

Q.1. **Identify** the Three main sections of a health and safety policy document and explain the purpose and general content of EACH section. (8)

Answer

This question was intended to test candidates' understanding of health and safety policies and their structure. Most candidates correctly identified the three main sections, and then went on to explain their purpose with varying degrees of success.

Better candidates first referred to the 'statement of intent', which both demonstrates management's commitment to health and safety and sets goals and objectives for the organisation; they then referred to the 'organisation' section, the purpose of which is to identify health and safety responsibilities within the company; and, finally, they turned to the 'arrangements' section, which sets out in detail the systems and procedures that show how the policy is to be implemented.

Q2. A medium sized engineering organisation intends to benchmark its health and safety similar organizations.

Outline the health and safety management issues that could be used to benchmark with the other organisations. (8)

Answer

An outline of any four of the following factors:

- Existence and quality of health and safety policy.
- Staff roles and responsibilities clearly outlined.
- Current documented health and safety plans and strategies which can be measured.
- The number, type and quality of risk assessments currently in place.
- Type of training provided.
- Level of monitoring:
- Proactively.
- Number and type of inspections, Audits, etc.
- Reactively.
- Accident and ill-health statistics.
- Near miss and dangerous occurrences. Enforcement Actions.

Q.3. **State** the circumstances that may give rise to a need for a health & safety policy to be reviewed. (8)

Answer

- Significant changes in the structure of the organisation
- After the introduction of new or changed processes or work methods
- Following changes in key personnel
- Following changes in legislation
- Where audits, risk assessments, monitoring exercises or investigations show that the policy is no longer effective or relevant
- Following enforcement action
- & after a sufficient period of time has elapsed since the previous review to suggest that another one is due.

Q4. a. **Outline** the circumstances that may give rise to a need for a health & safety policy to be reviewed. (8) (Or)

Describe the circumstances that would require a health & safety policy to be reviewed. (6)
(Or)

Outline the circumstances that would require a health & safety policy to be reviewed. (6)

Answer The circumstances that may necessitate revisions to a health & safety policy include:

- Changes in organisational arrangements/responsibilities, processes, materials, premises, legislation, work patterns or risk assessments
- or when considered necessary following an accident investigation, enforcement action, policy review or professional advice.

Q5. a. **Explain** the purpose of the “Statement of intent” section of a health & safety policy. **(2)**
(Or)

Identify the typical content of the “statement of intent” section of an organization’s health & safety policy document. **(2)** **(Or)**

Explain the purpose of **Each** of the following sections of a health & safety policy document

(i) Statement of Intent **(2)**

(ii) Organisation **(2)**

(iii) Arrangements **(2)** **(Or)**

Identify the **Three** main sections of a health & safety policy document & explain the purpose & general content of Each Section. **(6)** **(Or)**

Outline the purpose & general content of the **Three** main sections of a health & safety policy document. **(6)** **(Or)**

Identify the purposes of **EACH** of the following sections of a health & safety policy document.

(iv) Statement of Intent **(2)**

(v) Organisation **(2)**

(vi) Arrangements **(2)**

Answer

- “**A statement of intent**” demonstrates an organisation’s commitment to, & sets organisational objectives for, health & safety.
- The “**organisation**” section identifies the health & safety responsibilities & channels of communication within the organisation.
- & the “**arrangements**” section deals the practical means for achieving the objectives laid down in the policy statement.

Q.6. a. **Outline** the issues that are typically included in the arrangements section of a health & safety policy document. **(8)**

Answer

- Systems of work
- Health & safety training, provision of PPE
- Specific types of hazard (e.g. machinery, hazardous substances, manual handling, fire etc)
- Control of contractors
- Safety of visitors
- Accident reporting & investigation procedures
- First-aid facilities
- Emergency procedures
- Employee consultation
- & monitoring & review procedures.
- Specify the frequency of the inspections
- & the form that they might take
- Other data that would be collected (e.g. accident data)
- & the process of review, perhaps by a safety committee

Q.7. a. **Outline** the legal requirements whereby an employer must prepare a written health & safety policy. **(2)** **(Or)**

Outline the circumstances under which a written statement of health & safety policy is legally required **(2)** **(Or)**

Outline the requirements of section 2(39) of the HASAWA 1974 in relation to an employer’s duty to prepare a health safety policy. **(2)** **(Or)**

State the requirements whereby employers must prepare a written statement of their health & safety policy. **(2)**

Answer

- Written health & safety policy is imposed on employers with 5 or more employees by the HASAWA 1974, Section 2(3).

Q8. a. **Explain** the health & safety benefits of restricting smoking in the workplace (4).

Answer

- A reduction in the risk of fire
- An improvement in general cleanliness
- & a reduction in the exposure of non-smoking staff to cigarette smoke, which can have an irritant effect as well as causing possible long term health damage
- Other reasons include
- The promotion of health generally
- & the avoidance of conflict between smokers & non-smokers.

Q8. b. **Outline** the ways in which an organisation could implement an effective no-smoking policy. (4)

Answer

- The policy should be clear in its intent & communicated to all staff
- This might be achieved by the use of notice boards, leaflets & other forms of propaganda, while there would also need to be consultation with employees to encourage ownership
- Management's part in the process & suggested that they should set an example & also provide help to employees in the form of counselling
- Finally, the provision of designated smoking areas & the use of disciplinary procedures were correctly suggested as important to the successful implementation of the policy

Q9. **Outline** the various methods for communicating the contents of a health & safety policy to a workforce (4)

Answer

- Giving employees their own personal copy of the policy or a summary of it
- Displaying the policy on notice-boards
- Explaining the content of the policy at team briefings or tool-box talks & during induction or refresher training courses
- Referring to the policy in internal newsletters, booklets, emails & intranet communications
- & making the policy an agenda item at meetings of the health & safety committee

Q.10. **Explain** why a health & safety policy should be signed by the most senior person in a organization, such as a Managing Director or Chief Executive. (4)

Answer

- Would demonstrate management commitment
- Gives authority to the policy or that the person concerned ultimately had responsibility for health & safety in the organization

Q.11. **Outline** the factors that may indicate that health & safety standards within an organization do not reflect the objectives within the "statement of intent" (6)

Answer

- A failure to communicate the policy to employees so that they are unaware of the objectives that have been set
- A lack of commitment on the part of management & a lack of investment in health & safety
- A poor overall safety culture within the organization with production taking precedence over safety issues
- High accident, incident & ill-health rates
- Low moral amongst the employees with high labour turnover & unacceptable rates of absenteeism
- Unsafe or poorly maintained equipment with inadequate provision of necessary personal protective equipment (PPE)
- & finally the absence of monitoring procedures to ensure planned standards are being maintained

ELEMENT 3: ORGANIZING FOR HEALTH & SAFETY

- Q.1. a. **Outline** the key health and safety responsibilities of employers which are common in many countries. (8)

Answer

Key responsibilities of employers include:

- Provision of a safe workplace.
- Provision of safe plant and equipment, substances and agents.
- Provision of information and training to employees and others.
- Provision of emergency procedures.
- Co-operation with other employers at their workplace.
- Co-operation with their employees (consultation).
- Not charging employees for measures implemented for health and safety.

- Q.1 b. **Outline** the key health and safety responsibilities and rights of employees which are common in many countries. (8)

Answer

Key health and safety responsibilities and rights of employees include:

- Co-operating with their employer.
- Reporting any dangerous situation to their employer (or other suitable person).
- Having a right to receive adequate health and safety information.
- Having a right to receive adequate health and safety training relevant to their job.
- Having a right to be consulted by their employer on health and safety issues.

- Q.2. **List** the factors that might be considered when assessing the health & safety competence of a contractor. (8)

Answer

The last question on the paper was generally well answered with many candidates able to list a good range of factors that included, amongst others:

- The contractor's previous experience with the type of work; the reputation of the contractor amongst previous or current clients;
- The content & quality of the contractor's H&S policy & risk assessments;
- The level of training & qualifications of staff (including those with H&S responsibilities);
- Accident/enforcement history;
- Membership of accreditation or certification bodies;
- Equipment maintenance & statutory examination records;
- & the detailed proposals (e.g. method statements) for the work to be carried out.

- Q.3. An employer has a common law duty of care for the health, safety & welfare of their employees **Giving** an example in **Each** case, identify what the employer must provide in order to fulfil this common law duty of care. (8)

Answer

The basic common law duties of care for the health, safety & welfare of employees placed upon an employer include:

- The provision of a safe place of work
- Safe means of access & egress to the place of work
- Safe systems of work
- Safe plant & equipment
- Reasonably competent fellow employees
- & adequate levels of supervision, information, instruction & training.

Q.4. a. **Outline** the **Three** standard conditions that must be met for an employee to prove a case of alleged negligence against an employer. **(6)**

(Or)

Outline the **Three** standard conditions that must be met for an injured employee to prove a case of negligence against their employer following an accident at work **(6)**

(Or)

State the circumstances in which an employer may be held vicariously liable for the negligence of an employee **(2)**

Answer

- The employer owed a duty of care to the employee (in most cases this was self evident)
- There was a breach of that duty by failing to provide reasonable care
- The breach led directly to foreseeable harm to the employee (injury, disease or other loss)

Q.4 b. **Explain** the meaning of the term vicarious liability **(2)**

Answer

- vicarious liability means that an employer will be liable for the acts of his employees whilst acting in the course of their employment
- The employee was acting in the course of his employment; and the employee caused the damage by fulfill a common law duty of care, i.e. he was negligent.

Q.5. a. **Explain** the meaning of the phrase “so far as is reasonably practicable”. **(2)**

Answer

- Maintaining the balance of risk (Likely hood & severity of harm) against the cost, in terms of Time, Effort & money for reducing the risk.

Q.5 b. **State** the general, & specific duties of employer under section 2 of the Health & Safety at Work etc Act 1974 **(6)**

(Or)

Identify the general & specific duties of employer under section 2 of the Health & Safety at Work etc Act 1974 **(6)**

Answer

The duty of Employer is to provide:

- Safe plant & systems of work
- To ensure safety in the use of articles & substances
- To provide information, instruction & training
- To maintain a safe workplace (including access & egress)
- & to provide a healthy work environment
- Prepare a health & safety policy
- To consult with employee representatives
- & to form a safety committee under prescribed circumstances.

Q.5 c. **State** the penalties that may be imposed by the courts for a breach of that section **(2)**

Answer

- The penalty that can be imposed by a Magistrates’ court for a breach of this section is a fine of up to 20,000 pounds while for cases heard in the Crown court, the fine is unlimited.

Q.6. **Explain** the difference between an HSC Approved Code of Practice & HSE Guidance giving an Example of EACH. **(8)**

Answer

- ACOPs are approved by the HSC with the consent of the Secretary of State & provide a recognised interpretation of how an employer may comply with their associated legislation
- Although failure to comply with any provision of an ACOP is not in itself an offence, the failure may be cited in court in criminal proceedings as proof that there has been a contravention of the regulation to which the provision relates
- Employers must either meet the standards contained in the ACOP, or show that they have complied with an equal or better standard

- A number of examples could have been given such as the ACOPs complementing the W (H,S &W) R 1992 & the MHSWR 1999.
- Guidance, on the other hand, is issued by the HSE with the intention of giving advice on good practice
- The advice is generally more practically based than that contained in an ACOP
- Guidance has no legal standing in a court of law
- Examples of HSE guidance documents include those issued on matters such as manual handling, DSE & PPE

Q7. **Outline**, with an example of **EACH**, the difference between health & safety regulations & HSC approved code of practice. **(8)**

(Or)

Outline; give an example of EACH, the difference between Regulations & Approved Code of Practice. **(8)**

Answer

- H &S regulations are generally made under the HASAWA 1974 by the Secretary of State & contain statutory requirements.
- Which, if not met by the person on whom they are laid, may lead to prosecution in the courts & the imposition of a fine or to the issue of an enforcement notice by the appropriate enforcement authority
- ACOPs, on the other hand, are approved by the HSC with the consent of the Secretary of State
- They provide a practical interpretation of legal requirements in specific areas &, whilst they do not themselves impose any legal requirement, they may be introduced in court as supportive evidence.

Q.8. a. **Define** the term “negligence”. **(2)**

Answer

- A civil wrong (tort), involving unreasonably careless conduct (for a breach of the common law duty of care) resulting in Loss, Damage, or injury.

Q.8. b. **Outline** the **Three** standard conditions to prove a case of negligence against an employer **(6)**

Answer

- Firstly, that a duty of care was owed by the employer (i.e. that the employee was acting in the course of his/her employment
- Secondly, that the employer acted in breach of that duty by not doing everything that was reasonable to prevent foreseeable harm
- & thirdly, that the breach led directly to the loss, damage or injury.

Q.9. **Outline** the general defence available to an employer on a case of alleged negligence brought by an employee **(6)**

Answer

- That there was no duty of care owed to the employee since the case referred to something which did not take place during the course of employment
- That if such a duty were owed, there was no breach in that what happened was not foreseeable & in the event everything reasonably practicable had been done
- That the loss, damage or injury was either non-existent or not caused by any breach
- That the claimant voluntarily accepted the risk (violent-non-fit-injuries)
- Or that the case was out of time.

Q.10. **Outline Four** Key differences between civil law & criminal law **(8)**

(Or)

Outline with an example of **Each**, the differences between civil law & criminal Law **(8)**

Answer

- The different objectives of the two systems (one to provide a remedy & the other to punish)
- The burden of proof required (a balance of probabilities as opposed to beyond all reasonable doubt)

- The parties generally involved (two individuals rather than the state & an individual)
- & the different court structures involved
- Criminal law generally written down in statute or statutory instruments & with civil liabilities largely defined in common law by judicial precedent.

Q.11. a. **Outline** the main function of:

- Criminal Law **(2)**
- ii. Civil Law **(2)**

Answer

Criminal law:

- Enforces a code of conduct for society
- Normally has a protective function
- & allows the state to take punitive action against those who commit breaches

Civil law:

- Enabling an individual who has suffered harm to gain appropriate recompense from the perpetrator.
- Or to seek an injunction to prevent harm (or further harm) from occurring.

Q.11. b. **Explain** the principal difference between common law & statute law **(4)**

Answer

- Common law is not written down but is developed by the courts over time.
- In the area of H&S the common law tort of negligence forms the basis of many civil actions.
- Statute law, on the other hand, is written down (codified) in the form of Acts & Regulations, lays down requirements & assigns duties & responsibilities
- Failure to comply with statute law normally (but not always) constitutes a criminal offence but, even when it defines criminal law, statute law can also be used in civil actions unless specifically disallowed.

Q.12. **List** the powers given to health & safety enforcement officers appointed under the Health & Safety at Work etc Act 1974 **(8)**

Answer

- The right to enter premises, if necessary by enlisting the assistance of a police officer
- To carry out examinations & investigations
- To direct that premises or equipment be left undisturbed for the purpose of investigations
- To take measurements & photographs
- To inspect &/or take copies of documents & records
- To take samples
- To require a person to answer questions & sign a declaration to the truth of his/her answers
- To take possession of articles & substances
- To issue enforcement notices
- & to instigate & (except in Scotland) to conduct proceedings in a magistrates' court

Q.13. a. **Outline Four** powers available to an inspector when investigating a workplace accident **(4)**

Answer

- To enter premises at any reasonable time or when it is suspected that there is a dangerous situation
- To order that premises or equipment be left undisturbed for the purpose of an investigation
- To undertake any necessary examinations or inspections
- To take measurements & photographs
- To inspect or take copies of documents
- To require persons to answer questions
- & to take declarations
- & to take enforcement action

Q.13. b. **Identify** the **TWO** types of enforcement notice that may be served by an inspector, starting the conditions that must be satisfied before **EACH** type of notice is served **(4)**

Answer

- An **improvement notice** may be served where an inspector is of the opinion that there is a breach of statutory health & safety duty, or that there has been such a breach which is likely to continue or be repeated
- A **prohibition notice** may be served only where, in the inspectors opinion, there is a risk of serious personal injury
- In the latter case, a breach need not have occurred for the notice to be served.

Q.14. a. **Outline** the duties placed on employees by The Health & Safety at Work etc Act 1974 **(4)**

Answer

- Section 7 of the Act requires employees to take reasonable care for themselves & others who might be affected by their acts or omissions.
- & to cooperate with their employer or other person so far as is necessary to enable them to comply with their own statutory duties & requirements.
- Section 8 (which in fact applies to all persons & not just employees) requires that no-one shall intentionally or recklessly interfere with or misuse anything provided in the interests of health & safety or welfare.

Q.14. b. **Outline** the duties placed on employees by The Management of Health & Safety at Work Regulations 1999 **(4)**

Answer

- Regulation 14 of the "Management" Regulations, on the other hand, requires employees to use all work items in accordance with the training & instructions that they have been given
- It also requires employees to inform their employer (or a specified employee with health & safety responsibilities) of work situations that could present a serious & immediate danger, as well as any shortcomings that they might reasonably recognise in the existing arrangements for health & safety.

Q.15. a. **Outline Three** work activities that may present a particular risk to pregnant women **(6)**

Answer

- Manual handling or physically demanding work
- Tasks involving long periods of standing or sitting
- Work involving exposure to biological agents or chemical substances that might affect the unborn child
- Work in hyperbaric environments (i.e. those above normal atmospheric pressure)
- Tasks involving exposure to ionizing radiation
- & unusually stressful work including exposure to high levels of noise & hot environments.
- Radiographers exposed to x-rays & shop assistants who might be required to stand for long periods, which can lead to swelling of the feet (oedema), varicose veins, dizziness & fainting
- Check-out staff required to sit for long periods will be at increased risk from thrombosis & embolism

Q.15. b. **Outline** the actions that an employer may take when a risk to a new or expectant mother cannot be avoided **(2)**

Answer

- Changing the employee's working conditions (e.g. finding other suitable work or introducing additional breaks) or changing hours of work
- Where this is not reasonable, the employer would need to consider suspending the employee from work on full pay for as long as is necessary

Q.16. a. **Identify Four** types of emergency procedure that an organization might need to have in place **(4)**

Answer

- Evacuation in the case of fire
- For accidents
- For dangerous incidents such as chemical spillage, for security of intruder alert
- & in the event of an explosive device being suspected or discovered on site.

Q.16. b. **Explain** why visitor to a workplace should be informed of the emergency **(4)**

Answer

- Visitors need to be informed of the procedures so that they can act appropriately in the event of an emergency, thereby minimizing the risk to themselves as well as to other persons.
- Provision of such information will assist in the employer in complying with the requirements of the MHSWR 1999 that relate to ensuring the safety of persons other than employees working on the premises.
- The general duty owed to persons other than employees under section 3 of the HASAWA is also of relevance, as is the employer's common law duty of care.

Q.17. An employee was serious injured while operating a machine having disabled an interlocking device. The Accident was properly reported to the enforcing authority & an HSE inspector has arrived to investigate the accident

a. **Outline** the powers the inspector may use in order to gather information for the investigation **(8)**

Answer

- Requiring the scene of the accident to be left undisturbed
- Entering the premises & taking other persons authorized by his/her enforcing authority (who may have specialist knowledge of the machinery involved)
- Inspecting the scene of the accident &, if necessary, taking possession of the machinery involved if he considers that further examination & testing are necessary
- Taking measurements & photographs
- Questioning interested parties (e.g. witnesses, supervisors, managers, etc) & taking written signed statements of their answers
- & being proved with any document relating to the accident which is required to be kept by law or which may assist in the investigation

Q.17. b. Give reasons in **Each** case, **identify** the specific H&S legislation that the machine operator may have breached **(6)**

Answer

- Identified the requirements of both the HASAWA 1974 & the MHSWR 1999 which were specific to an employee
- The operator could have breached section 7 of the Act in that he did not take reasonable care of himself by using the machine without the guard, & additionally section 8 in that he interfered with something provided in the interests of health & safety by disabling the interlocking device on the machine
- As for the Regulations, he could have been in breach of Regulation 14 since he did not report that the guard was defective.

Q.17. c. **Outline** the action management may take to prevent similar accidents **(6)**

Answer

- Investigating the need to disable the interlocking device & the extent of the practice
- Redesigning the device to make it more difficult to disable
- Introducing refresher training for employees on the operation of the machine
- Improving the quality of supervision & introducing a regime of regular inspections & monitoring
- & applying disciplinary measures for non-compliance with laid down procedures

ELEMENT 4: PROMOTING A POSITIVE HEALTH & SAFETY CULTURE

- Q1. a. **Outline** the events that may create a need for additional health and safety training within an organisation. (10)

Answer

An outline of the following events that may create a need for additional health and safety training:

- Job change.
- Promotion (especially into a management position).
- Restructuring / reorganisation.
- Change of process or equipment.
- New legislation.
- As a result of risk assessment.
- Inspection or audit.
- An unacceptable number of accidents / incidents or ill-health.
- Enforcement action.
- New buildings / acquisitions.

- Q1. b. **Outline** the factors to be considered when preparing and presenting a training session on health and safety. (10)

Answer

When outlining factors to be considered when preparing and presenting a health and safety training session:

- Identify the training needs.
- Identify training objectives.
- The target audience; existing knowledge / skills, relevance of training / motivation, capacity for learning, essential prior knowledge.
- Identify training methods; lecture, video, group work, role play, tool box talks, on-the-job training, etc.)
- How the effectiveness of the training will be evaluated; e.g. test / examination / quiz, work monitoring, practical demonstration (test piece); long-term monitoring of accident statistics, etc.
- Number of trainees.
- Time available.
- Training aids required.
- Suitability of training facilities; location, room size, layout, lighting, car parking.
- Refreshment breaks during the course, start and finish times.
- Course 'rules'; mobile phones, interruptions, emergency procedures.
- Course administration; register, evaluation forms, travel arrangements; course material, etc.

- Q.2. **Outline** the factors that contribute towards a positive safety culture within an organization. (8)

Answer

Not surprisingly, answers were divided into those where candidates evidently understood the term 'safety culture' and those where their understanding was limited.

Although many candidates were able to cite factors such as the commitment and leadership of senior management, and the competence and training of the workforce, fewer included a range of other relevant factors. These could have included: a clear policy with health and safety being given obvious equal priority to other business objectives (production, quality, etc); the setting of realistic and achievable targets; the provision of a good working environment; proactive monitoring of health and safety standards; effective communication channels; a 'no-blame' culture; and consultation with, and the involvement of, the workforce.

- Q.3. Representatives of employee safety can be elected to representative employees under the Health & Safety (Consultation with Employees) Regulations 1996
a. **State** the criteria that would help to determine the appropriate number of representatives of employee safety in a workplace (4)

Answer

- The size of the workplace &/or the number of locations
- The total number of employees
- The type of work activity with particular reference to the risks involved
- The variety of occupations at the workplace
- The operation of shift patterns
- & the areas which might not be covered by trade union consultation

- Q.3 b. **Outline** the entitlements of representatives of employee safety under the Regulations. (4)

Answer

- Being provided with reasonable facilities & assistance
- Being given time off with pay for training & enable them to carry out their functions
- To make representation to the employer on hazards & general matters of health & safety
- To be provided with the information necessary to enable them to carry out their functions such as that contained in records kept under the requirements of RIDDOR
- & to be given the facility to represent employees in consultation with inspectors.

- Q.4. **Outline Four** advantages & **Four** disadvantages of using “propaganda” posters to communicate health & safety information the workforce (8)

Answer

Advantages of posters include:

- Their relatively low cost, (allowing them to be displayed in the lost apposite positions)
- Their brevity (allowing messages to be easily understood)
- Their use in reinforcing verbal instructions or information
- & in providing a constant reminder of important health & safety issues
- & their potential to allow employees to become involved in their selection & hence in the message being conveyed

Disadvantages include

- The need to change posters on a regular basis if they are to be noticed
- The fact that they may become soiled, defaced & out-of-date
- & the possibility that they might be seen to trivialise serious matters
- Additionally they might actually alienate people if inappropriate stereotypes (e.g. of the “stupid” worker) are used
- They provide no direct way of assessing whether the message has been understood
- & they may be perceived by unscrupulous employers as an easy, if not particularly effective, way of discharging their responsibility to provide health & safety information
- & even of shifting the responsibility onto the workforce for any accidents that may occur

- Q.5. **Explain** why it is important to use a variety of methods to communicate health & safety information in the workplace (8)

Answer

- People respond differently to different stimuli, & that variety prevents over-familiarisation with one method & helps to reinforce a message
- The need to overcome language barriers & the inability of some employees to read
- The need to motivate, stimulate interest & gain involvement & feedback
- & the acceptance that different types of information require different methods of communication

Q.6. **Outline** the topics that may need to be included on the agenda of a safety committee meeting **(8)**

Answer

These may include, for instance

- A review of recent incidents
- A review of proactive monitoring strategies such as safety inspections & audits
- Reports following visits by enforcement authorities
- & the effects of the company of new or impending H&S legislation

Additionally, the safety committee agenda should include items

- On possible amendments to the company's health & safety policy & risk assessments
- The extent & effectiveness of any H&S training given to employees
- & the introduction of new equipment & processes

Q.7. With reference to the Health & Safety (Consultation with Employees) Regulations 1996
a. **Explain** the difference between consulting & informing **(2)**

(Or)

In relation to employee involvement in health & safety **explain** the difference between consulting & informing **(2)** | Work Book - IGC-1 28

Answer

Consulting:

- Consulting is a two way process
- Consultation is done during the Introduction of new measure, new technology, planning of alterations

Informing:

- Informing is a one way process of giving information by employer.
- Take steps to keep informed of legislation, hazards and control measures, Employer's policy.

Q.7. b. **Outline** the health & safety matters on which employers must consult their employees **(6)**
(Or)

Outline the health & safety matters on which employers must consult their employees under the Health & Safety (Consultation with Employees) Regulations 1996 . **(6)**

Answer

- The introduction of any measures at the workplace that may substantially affect the employees' health & safety
- The arrangements for appointing &/or nomination competent persons
- The H&S implications of introducing new technology
- The planning & organisation of H&S training
- & the information that the employer is required to provide under other Regulations, such as that relating to Risk assessments, Preventative measures & emergency procedures
- Hence employers are not only obliged to provide information but must consult their employees on the appropriateness of the information before it is given

Q.8. With reference to the Health & Safety (Consultation with Employees) Regulations 1996
Identify the particular H&S matters on which employers must consult their employees **(4)**

Answer

- The introduction of measures affecting the health & safety of employees
- The arrangements for appointing or nominating competent persons under regulations 7 & 8 of the MHSWR 1999
- H&S information required by law to be provided to employees
- The planning & organizing of health & safety training that has to be provided
- & the consequences of the introduction of new technology

- Q.9. a. **Explain** the circumstances under which an employer must form a health & safety committee **(2)** **(Or)**
Identify the circumstances under which an employer must establish a health & safety committee **(2)**

Answer

- An employer must establish a health & safety committee when requested to do so in writing by 2 or more trade union-appointed safety representatives.

- Q.9 b. **Give** reasons why a health & safety committee may be ineffective **(6)** **(Or)**
Give Six reasons why a health & safety committee may be ineffective **(6)** **(Or)**
Outline the reasons why a health & safety committee may prove to be ineffective **(8)**

Answer

- A lack of management commitment
- No agenda or remit &/or no minutes or notes of the meetings being produced
- An uneven balance between management & employee representatives
- Poor chairmanship
- No access to the decision-making processes
- Infrequent meetings
- Inappropriate topics
- & no access to health & safety expertise.

- Q.10. **Name & Describe FOUR** classes of safety sign prescribed by the Health & Safety (Signs & Signals) Regulations 1996 **(8)**

(Or)

State the shape & colour, Give a relevant example, of **EACH** of the following types of safety sign.

- Prohibition. **(2)**
- Warning. **(2)**
- Mandatory. **(2)**
- Emergency escape or first-aid. **(2)**

Answer

The Four classes of safety sign are:

- Prohibition.
- The signs are round or circular with the main colour being red (at least 35% of the area of the sign). They have a black symbol or pictogram on a white background with a red border and diagonal cross bar.
- Warning.
- [The signs are triangular with the main colour as yellow (at least 50% of the area of the sign). They have a black symbol or pictogram on a yellow background with a black border.
- Mandatory.
- They are circular with a solid blue background with a white pictogram.
- Emergency escape or first-aid.
- The signs are rectangular or square with the dominant colour being green (at least 50% of the area of the sign). They have a white symbol or pictogram on a green background.
- & fire-fighting
- The signs are rectangular or square with the main colour being red (at least 50% of the area of the sign). They have a white symbol or pictogram on a red background.

- Q.11. In relation to the Safety Representatives & Safety Committees Regulations 1977

- a. **Outline** the functions of a trade-union appointed safety representative **(6)**

Answer

Part (a):

- Investigating hazards & dangerous occurrences & examining the causes of accidents
- Investigating complaints from employees
- Carrying out safety inspections
- Making representations to the employer
- Attending safety committee meetings
- Representing employees in consultations with the enforcing authority

- & receiving information from its inspectors.
- In order to carry out these functions, the safety representative has certain rights, such as
- Access to relevant documents
- The use of appropriate facilities
- Entitlement to inspect the workplace at set intervals
- & time off for training

Q.11. b. **Outline** the facilities that an employer may need to provided to safety representatives **(2)**

Answer

The facilities that an employer may need to provide:

- A private room
- Telephone
- Fax machine
- Photocopier
- & relevant reference material

Q.12. **Give** reasons why a verbal instruction may not be clearly understood by an employee **(8)**

Answer

The reasons why someone might misunderstand an instruction may be due to:

- The way that verbal information is given (e.g. Complex, Jargonistic, Ambiguous, Not in the usual language of the receiver, In a heavy dialect.
- Distorted by the means of communication such as telephone or tannoy
- Inconsistent with body language
- Due to the environment (e.g. noisy)
- Or due to some limitation on the part of the receiver (e.g. mental or physical difficulty)
- Inattention
- lack of knowledge or experience
- Restricted by PPE.

Q.13. Following a significant increase in accidents, & H&S campaign is to be launched within an organization to encourage safer working by employees

a. **Outline** how the organization might ensure that the nature of the campaign is effectively communicated to, & understood by, employees **(8)**

Answer

- Everybody within an organization shall know the part that they are to play within a health & safety campaign.
- An important prerequisite is to have clear objectives & targets for the campaign, & to be clear on the means of achieving them
- It is also important that key responsibilities for aspects of the campaign are allocated, & accepted with due commitment, in order to avoid mixed messages
- The Different means of communication can be used for safety campaign, a variety of means are posters, e-mails, toolbox talks, training sessions, etc. could be used to communicate & reinforce the message, with account taken of the language used in order to facilitate understanding (Avoidance of jargon, Use of plain English, etc)
- Toolbox talks, suggestion boxes, surveys & informal means of consultation can be used to involve employees & to provide a feedback loop to check that employees understand what the campaign is about & to assess the level of support.
- It is also important to provide feedback to employees on how the campaign is progressing so that focus on the campaign's objectives is maintained

Q.13. b. Other than poor communication, **describe** the organisational factors that could limit the effectiveness of the campaign **(12)**

Answer

- Lack of senior management commitment
- Production or other pressures taking priority over health & safety
- Insufficient resources allocated to the campaign
- & a poor safety culture in general
- It should also have been recognized that poor working conditions are likely to induce cynicism towards the campaign amongst employees
- In addition, poor industrial relations or a lack of confidence in management's ability could mean that the campaign is not given support of influential members of staff
- Work patterns (e.g. shift work) could also mean that some sections of the workforce are not fully considered or supported, possibly due to the non-availability of key staff

Q.14. a. **Identify Four** types of health & safety information that might usefully be displayed on notice board within a workplace **(4)**

Answer

- The health & safety policy of the organization
- The "Information for Employees" poster
- Information regarding health & safety representatives (e.g. their names & contact details)
- Targets for the reduction of accidents & ill-health & information showing the current level of performance against the targets
- Forthcoming health & safety events including information on training courses available
- Identification of first-aid arrangements & procedures for evacuation in the event of a fire
- Health & safety posters specific to current campaigns being run by the employers or HSE
- & a copy of the employer's liability insurance certificate.

Q.14. b. **Explain** how the effectiveness of noticeboards as a means of communicating health & safety communication to the workforce can be maximised **(4)**

Answer

- Ensuring they were located in a common & prominent area of the workplace (e.g. the staff room or canteen)
- Dedicating the boards to health & safety matters
- Ensuring the information displayed was relevant & current & kept up to date
- Displaying the information in a neat & orderly fashion & making the notice board eye-catching by the use of color & graphics.

Q.15. In relation to the H&S (Consultation with Employees) Regulation 1996

a. **Outline Four** types of information that an employer is Not obliged to disclose to a representative of employee safety **(4)**

Answer

- Disclose personal medical or other information to an employee representative without the consent of the individual concerned
- &, additionally, information that would be against the interests of national security
- That not relating to health & safety
- Where the information would contravene a statutory prohibition imposed on the employer
- Where the information was obtained by the employer in connection with legal proceedings
- & where it would damage the employer's interests.

Q.15 b. **Outline** the types of facilities that an employer may need to provide to representatives of employee safety **(4)**

Answer

The facilities that an employer may need to provide:

- A private room
- Telephone
- Fax machine
- Photocopier
- & relevant reference material

Q.16. **Outline** the sources of published information that may be consulted when dealing with a health & safety problem at work **(4)**

Answer

- HSC ACOPs
- HSE guidance documents & leaflets
- Standards (international, European & British)
- Safety periodicals
- Various technical & legal publications
- & materials produced by employer & employee organisations.
- Materials published electronically, for instance on compact disc or on the internet.

Q.17. a. **Outline** the benefits to an organisation of having a health & safety committee **(4)**

Answer

- It demonstrates management commitment & compliance with the legal requirements to consult with employees
- It facilitates consultation & communication with the workforce via employee representatives
- It provides a means of recording discussions that have taken place on health & safety matters & it may help to foster a positive H&S culture by encouraging employee involvement & ownership

Q.17. b. **Identify** a range of methods that an employer can use to provide health & safety information directly to individual employees **(8)**

Answer

- Notice boards
- Team briefings
- Training sessions including induction & tool box talks
- Newsletters & the inclusion of messages with wage/pay slips
- Posters
- Competitions & signs
- & one to one briefing such as appraisal sessions

Q.18. **Outline** ways to help ensure the effectiveness of a health & safety committee **(8)**

Answer

- One of the prime requirements in setting up an effective safety committee is to ensure that it has the full backing of senior management, that its membership constitutes an even balance between management & employee representatives (under the chairmanship of a fair, strong but diplomatic individual), & all of whom would be in a position to authorized agreed action
- It would be essential that time & resources are set aside for committee meetings which should be set at a convenient time & notified in advance to all members with a copy of the agenda.
- Items for discussion should be topical & relevant to the organization & the safety adviser should always be present to provide professional health & safety advice
- Formal minutes should be prepared after each meeting including actions that have been agreed & a copy of these should be displayed where it is accessible to all employees so that they might be aware of the decisions that have been taken

Q.19. **Outline** reasons why an employee might require additional health & safety training at a later stage of employment within an organization **(8)**

Answer

- The introduction of new processes, equipment & methods of work
- As a result of a job change involving different health & safety requirements &/or the allocation of additional responsibilities
- Following the introduction of new legislation
- Where risk assessments or staff appraisals indicate that additional training is necessary
- Where refresher training is required such as that required for for-lift truck operators & first-aid personnel
- Following an accident, enforcement action or insurance impositions
- & to counteract the possibility of employees becoming complacent & lax in following established procedures for health & safety.

Q.20. **Outline** the various circumstances that may create a need for a review of health & safety training within an organization **(8)**

Answer

- The introduction of new technology or a new item of work equipment or process
- A job change for one or a group of individuals; accident incidence data or the findings of an accident investigation
- The results of risk assessments or review
- New legislation or guidance
- As a result of enforcement action
- New employees with special needs (e.g. young or disabled workers)
- & requirements imposed by the employer's insurance company

Q.21. **Outline** the main health & safety issues to be included in an induction training programme for new employees **(8)**

Answer

- The organisation's H&S policy
- Emergency procedures
- Hazards specific to the workplace & the need to comply with health & safety requirements
- Health & safety responsibilities & lines of communication
- Accident & first-aid arrangements
- & welfare provision

Q.22. A contractor has been engaged to undertake building work in a busy warehouse

a. **Outline** the issues that should be covered in an induction programme for the contractor's employees **(8)**

Answer

In the situation described, the employees of the contractor should be made aware of such issues as:

- The particular risks in the working area (e.g. Movement of FLT's, Falling materials, Conveyors & the possible presence of asbestos)
- General site safety rules regarding smoking, clothing & PPE, use of electrical equipment & so on
- Requirements for PTWs & other controls
- Exclusion zones & traffic routes
- Arrangements for the storage of materials
- Accident reporting & other emergency procedures (e.g. actions required in the case of fire)
- & the location & use of welfare facilities including first-aid

- Q.23. An independent audit of an organisation has concluded that employees have received insufficient health & safety training
- a. **Describe** the factors that should be considered when developing an extensive programme of health & safety training within the organisation **(12)**

Answer

- The completion of a training needs analysis is an important first step in the development of any programme of training i.e. comparing what employees need to know to know with what they already know.
- In deciding what employees need to know, consideration should be given to
- Their responsibilities
- The activities carried out
- The risks associated with those activities
- & the actions required of employees to minimize such risks
- It should have been recognized in this context that a senior manager, for instance, will have different training needs with respect to health & safety from those of a supervisor or a shop floor employee
- An assessment would then need to be made of employees' existing knowledge, taking into account
- Their previous experience
- The levels & types of training already received
- & any indications of where deficiencies may lie (e.g. from incident data or by observation)
- From the training needs analysis would emerge information on
- The number of employees involved
- The types of training needed & the resources (in terms of financial costs, time & facilities) required to carry out the programme
- The factors to be considered at this stage would include:
- The competence & expertise of in-house staff to provide the required training
- The possible need to involve external sources
- & the means of communicating the programme to employees at all levels in order to seek their commitment to
- & their views on, the programme

- Q.23 b. **Outline** the various measures that might be used to assess the effectiveness of such training **(4)**

Answer

- Post-training evaluation by trainers
- The trainees themselves & their supervisors
- Accident rates & sickness absences
- Levels of compliance with laid-down procedures (such as the wearing of PPE)
- The results of attitude surveys
- & the number & quality of suggestions made & concerns raised, by employees with respect to health & safety.

- Q.23 c. **Give Four** reasons why it is important for an employer to keep a record of the training provided to each employee **(4)**

Answer

Reasons for keeping individual training records would include:

- To provide proof of an employee's expected level of competence
- To identify when additional or refresher training might be needed
- To enable a review of the effectiveness of the training to be carried out
- To access the progress of the training programme against targets
- & to provide evidence to be used in any future accident investigation or legal actions.

- Q.24. Drivers of internal transport are required to be competent before they are permitted to drive vehicles within the workplace
a. **Explain** the meaning of the term “competence” **(4)**

Answer

A person to be considered competent would:

- Need to possess knowledge based on appropriate qualifications & training
- Have skills & experience to apply the knowledge in a given situation
- & possess personal qualities such as appropriate attitude & the ability to communicate & importantly a clear recognition of his own limitations.

- Q.24 b. **Identify** measures an employer can take to ensure that their drivers of internal transport are, & remain, competent **(4)**

Answer

To ensure the initial & continuing competence of drivers of internal transport, employers should:

- Check the relevant certification or license of the drivers
- Check their previous experience particularly their references & accident history
- Introduce refresher training & practical workplace assessments
- & carry out regular supervision & monitoring of the drivers at work.

- Q.25. Non compliance with safety procedures has been identified as one of the possible causes of a serious accident at work

Outline reasons why the safety procedures may not have been followed **(8)**

Answer

There are many reasons why employees may fail to comply with safety procedures at work such as:

- Inadequate resources whether of tools, equipment or employees
- Unrealistic or ill-considered procedures
- Lack of adequate information & training & a perceived lack of consultation
- A poor safety culture within the organisation
- Fatigue, illness & stress
- Lack of concentration because of boredom & repetitive work tasks
- Poor working conditions
- Mental &/or physical capabilities not taken into account
- Inadequate supervision
- Peer group pressure
- A failure to recognise risks
- & ultimately a wilful disregard of the safety procedures

- Q.26. a. **Identify** the factors that place young persons at greater risk of accidents at work **(4)**

Answer

- Lack of perception of risk or of ability to avoid risk (because of limited knowledge, experience &/or lack of training)
- The individual's stage of physical development
- & the tendency of young persons to take risks & to respond to peer group pressure.

Q.26 b. **Outline** the measures that could be taken to minimise the risk to young persons **(4)**

(Or)

An employer has agreed to accept a young person on a work experience placement for one week. **Outline** the factors that the employer should consider prior to the placement **(8)**

(Or)

a. **Identify Four** "personal" factors that may place young person at greater risk from workplace hazards **(4)**

b. **Outline Four** measure to take to reduce the risk of accidents to young person in the workplace **(4)**

Answer

- The completion of risk assessments with young persons specifically in mind
- Induction programmes, careful supervision or mentoring by an experienced co-worker
- Clear lines of communication, & limits on the number of hours worked

Q.27. **Outline** ways in which employers may motivate their employees to comply with health & safety procedures **(8)**

Answer

- Motivation is the driving force behind the way in which a person acts in order to achieve a goal.

Employers may motivate their employees by:

- Improving, by training & the provision of information, employee's knowledge of the consequences of not working safely
- Showing the commitment of the organisation to safety by providing resources & a safe working environment
- Involving employees in health & safety decisions by consultation & team meetings
- Recognizing & rewarding achievement

Q.28. **Outline** the personal factors that might place an individual at a greater risk of harm while at work **(8)**

Answer

Factors that may place an individual at greater risk of harm at work include:

- A generally poor attitude to work, authority &/or risk often coupled with low motivation
- Issues relating to physical capabilities or development (such as lack of stature, strength &/or stamina) & to mental capabilities (such as poor reasoning skills)
- Poor perception of risk, perhaps influenced by alcohol or drugs
- Age-related behavioural factors associated with immaturity
- & innate or medical conditions affecting physical or mental capacity
- Further factors relate to the levels of training & experience of the individual

Q.29. a. **Explain** the meaning of the term "perception" **(2)**

Answer

- "Perception" means the way that people interpret & make sense of presented information, for instance, in relation to their surroundings
- Example: A person drives over the speed limit because they have done so without any accidents for 5 years and therefore their perception is that this is a safe behaviour.

Q.29. b. **Outline** the factors that may influence a persons perception of risk in the workplace **(6)** **(or)**
Outline the factors relating to the individual that may influence a person's perception of an occupational risk **(6)**

Answer

The factors that may influence a person's perception of risk in the workplace:

- The nature of the hazard (e.g. obvious or hidden, immediate or delayed effects, etc)
- A person's previous experience & familiarity with the situation
- The level & nature of training
- Peer group influences
- Confidence in others' abilities & judgements
- & a number of other personal characteristics such as age, attitude & sensory impairment

Q.29. c. **Outline** ways in which employee's perception of hazards in the workplace might be improved. **(6)**

Answer

Perception can be improved by:

- Increasing awareness of hazards, e.g. safety campaigns or posters;
- Involving people in the risk assessment process;
- Increasing knowledge, e.g. training;
- Identifying, including by the use of surveys, the reasons for employees' misperceptions in order to show how improvements might be achieved and how currently held views might be challenged; and
- Addressing environmental factors, e.g. lighting and noise that might cause distraction or otherwise hinder the perceptual process.

Q.30. a. **Identify Four** factors relating to the individual that might increase the risk of accidents at work **(4)**

Answer

- Age
- Lack of skill or experience
- Lack of familiarity (or possibly over familiarity) with the workplace, high stress levels
- & health problems
- Medical conditions or physical disability/incapacity (including that brought about by alcohol & drugs).

Q.30. b. **Give** reasons why maintenance operations may pose particular risk to those undertaking them **(4)**

Answer

- The existence of new or different hazards
- The lack of familiarity or experience with the tasks or equipment involved
- The likelihood that the events leading to the need for maintenance & their contingent hazards would be unpredictable
- The possibility that the maintenance operations would have to be carried out in confined spaces or other poor work environments
- & the inevitable pressure on maintenance staff to complete the work in as short a time as possible in order to return to normal production

Q.31. a. **Outline** ways of reducing the likelihood of human error in the workplace **(8)**

Answer

- The use of skilled, trained & competent staff (including pre-employment screening issues)
- Motivation of the workforce
- Task variety to prevent monotony & the provision of frequent breaks to avoid work overload
- Addressing workplace environmental issues such as noise, light & heat
- Mechanisation & automation
- Ensuring that controls on machinery are clearly marked
- Implementation of a drug & alcohol policy
- & providing competent supervision of employees

Q.31. b. **Give Four** reasons why the seriousness of hazard may be underestimated by someone exposed to it. **(4)**

Answer

- Over familiarity & complacency
- Lack of instruction, information & training
- Lack of experience, particularly where young persons are involved
- The fact that some hazards (e.g. airborne contaminants or radiation) may be invisible &/or intangible
- Sensory impairment
- & involvement in routine, repetitive tasks that can lead to lack of attention.

Q.31. c. **Outline** ways in which manager can motivate employees to work safely **(8)**

Answer

Manager can motivate employees to work safely by:

- Improving, by training & the provision of information, employee's knowledge of the consequences of not working safely
- Showing the commitment of the organisation to safety by providing resources & a safe working environment
- Involving employees in health & safety decisions by consultation & team meetings
- Recognizing & rewarding achievement

Q.32. a. **Outline** the factors that may determine the level of supervision an employee should receive during their initial period within a company. **(8)**

b. **Outline** the factors that will determine the level of supervision that a new employee should receive during their initial period of employment within an organization **(8)**

Answer

The factors that may determine the level of supervision that should be given to someone starting work in an organisation:

- The age of the employee, as well as his/her experience of work in general & of the task to be performed in particular
- The nature & complexity of the task & its inherent risks
- The person's skills & qualifications for the work
- His/her attitude & aptitude
- The systems of work & any specific safety requirements applying to the task
- & the employee's communication skills & any special needs that he/she may have.

Q.33. a. **Explain** the meaning of term "motivation". **(2)**

Answer

- "Motivation", which is essentially the driving force behind the that that someone strives to achieve a goal or objective (e.g. to work safely)

Q.33. b. Other than the lack of motivation, **Outline Six** reasons why employees may fail to comply with safety procedures at work **(6)**

Answer

- Lack of management commitment
- Over familiarisation with the tasks to be performed
- Repetitive work, leading to boredom & lack of concentration
- Peer group pressure
- Willful disregard of laid-down procedures coupled with inadequate or ineffective supervision
- Fatigue & stress; Lack of communication, training & consultation

Q.34. Most occupational accidents can be attributed in part to human error.

a. **Outline** ways of reducing the likelihood of human error in the workplace. **(8)**

Answer

- The use of skilled, competent & properly trained employees & ensuring that they are well motivated.
- Avoiding monotonous work processes & arranging breaks to counter fatigue
- Designing clear roles & lines of communication with the workforce & ensuring adequate levels of supervision
- Establishing good lines of communication with the workforce & ensuring the clarity of instructions & information passed on to them
- Implementing policies on alcohol & drugs (prescribed & otherwise)
- Addressing the workplace environmental issues such as noise, light & heat
- & designing the workplace & work equipment to reduce the opportunity for error (e.g. Automation, unambiguous controls/information, Monitoring & confirmation of actions & feedback loops.
- The possibility of human error, & its effects on health & safety, should also form part of any risk assessment, which should take into account previous incidents & the results of accident investigation.

Q.35. a. **Explain** the meaning of the term “competent person”. **(2)**

Answer

A competent person would need to possess knowledge based,

- On appropriate qualifications & training
- The skills
- Experience & personal qualities to apply the knowledge in a given situation
- &, importantly, a clear recognition of his or her limitations

Q.35. b. **Outline** the organizational factors that may cause a person to work unsafely even though they are competent. **(6)**

Answer

Organizational factors that may cause a person to work unsafely even though they are competent are:

- Management or peer group pressure
- A poor safety culture in the organization.
- A lack of resources or equipment
- A lack of clarity in roles & responsibilities
- Inadequate supervision
- & poor working conditions.

Q36. **Outline** the factors that might cause the safety culture within an organization to decline. **(8)**

Answer

- Lack of effective communication
- The perception of a growing blame culture
- Lack of leadership & commitment at senior level
- Lack of monitoring or a failure to implement remedial action
- Lack of consultation & employee involvement
- A generally a poor working environment
- A high staff turnover leading to lack of continuity & loss of momentum in making safety improvements
- & external influences such as downturn in the economy, leading to job insecurity with the possibility of health & safety being seen as a less of a priority

ELEMENT 5: HEALTH & SAFETY RISK ASSESSMENT

&

ELEMENT 6: PRINCIPLES OF CONTROL IN HEALTH & SAFETY

- Q1. a. **Outline** the steps that should be used in carrying out a risk assessment, identifying the issues that would need to be considered at each stage. **(10)**

Answer

The first step in carrying out a risk assessment is to identify the task or location being assessed, and to identify all the hazards involved which may include chemical, physical, biological, ergonomic or psychological hazards.

Secondly, the people who might be harmed by the hazards are identified. This will include consideration not only of regular workers, but also of non-employees (contractors, public), non-regular workers such as maintenance or cleaning staff, and 'vulnerable' employees such as pregnant women or lone workers.

Once the hazards and the possible people involved are identified, the risk should be evaluated. This is usually determined by considering both the likelihood of the harm occurring and the severity of any harm should it happen.

The significant findings of the risk assessment should be recorded in a retrievable format and the assessment should be reviewed regularly

NOTE. This answer is based on the '5 steps to risk assessment', and although candidates were not expected to necessarily refer to this guidance, the key stages as indicated above should have been included in their answer.

- Q1. b. **Outline** the factors that the employer should take into account when selecting individuals to carry out risk assessments. **(6)**

Answer

Factors that an employer should take into account when selecting individuals to carry out risk assessments include:

- The level of experience or training of the individual in hazard identification and in carrying out risk assessments.
- Their level of familiarity with the process or activity being assessed.
- The ability to interpret legislation and guidance.
- Their ability to provide realistic short and long term control measures for the risks identified.
- Their technical knowledge of any plant or equipment involved.
- Their ability to lead and engage workers in the assessment process.
- Their level of communication and report writing skills.
- Any other relevant factor.

- Q1. c. **List FOUR** criteria which need to be fulfilled to ensure that a risk assessment is 'suitable and sufficient'. **(4)**

Model Answer

- Staff undertaking the assessment has sufficient knowledge and experience.
- All significant hazards and risks are addressed.
- All aspects of the workplace or activity are considered.
- Non-routine operations are considered.
- Work organisation is considered.
- The risks to the public or other third parties are considered.
- A systematic process is used.
- Short and long term control measures are identified.
- Recommended control measures are prioritised.

- Q.2. **Outline** the factors that may increase risks to pregnant employees. **(8)**

Answer

A few candidates showed a wide knowledge of the issues involved and provided excellent answers to the question. The remainder, however, found it hard-going and outlined only one or two of the relevant factors.

Factors that could have been outlined included: exposure to chemicals such as pesticides, lead and those that cause intracellular changes (mutagens) or affect the embryo (teratogens); biological exposures, (e.g. hepatitis); exposure to physical agents such as ionising radiation and extremes of temperature; manual handling; ergonomic issues relating to prolonged standing or the adoption of awkward body movements; stress; and issues associated with the use and wearing of personal protective equipment.

Q.3. a. **Identify** work activities that may present a particular risk to pregnant work at work giving an example of EACH type of activity. **(6)**

Model Answer

- Manual handling
- Tasks involving long periods of standing or sitting
- Work involving exposure to biological agents or chemical substances that might affect the unborn child or pregnant/nursing mother
- Work in hyperbaric atmospheres
- Tasks involving ionising radiation & unusually stressful work.
- radiographer in the case of exposure to ionising radiation
- & a shop assistant when itemising work involving long periods of standing

Q.3. b. **Outline** the actions that an employer may take when a risk a new or expectant mother cannot be avoided **(2)**

Answer

- Changing the working conditions or hours of work of the employees, offering them suitable alternative work or suspending them from work as long as necessary on full pay.

Q.4. With respect to the Management of risk within the workplace.

a. **Explain** the meaning of the term “hierarchy of control”. **(2)**

Answer

- The measures designed to control risks which are considered in order of importance, effectiveness or priority or measures designed to control risk that normally begin with the extreme measure of control & end with the final control measure being the provision of PPE such as ear defenders or RPE.

Q.4 b. **Outline**, with examples, the standards hierarchy that should be applied with respect to controlling health & safety risks in the workplace **(6)**

Answer

- Eliminating the risk either by designing them out or changing the process
- The next step would be the reduction of the risks by, for example, the substitution of hazardous substances with others which were less hazardous
- If this was not possible, then isolation would have to be considered, using enclosures, barriers or worker segregation.
- The application of engineering controls such as
- guarding
- The provision of LEV systems
- The use of reduced voltage systems or RCDs would follow with the final control measure being the provision of PPE such as ear defenders or RPE.

Q.5. a. In relation to risk assessment carried out under the Management of Health & Safety at Work Regulations 1999, **explain** the meaning of the term “suitable & sufficient”. **(3)**

Answer

- All significant hazards & risks
- enable priorities to be set
- Allow the identification of the protective measures required
- Be appropriate to the nature of the work
- & be valid over a reasonable period of time

Q.5. b. **Outline** the changes in circumstances that may require a risk assessment to be reviewed **(5)**

Answer

- Changes in process
- Work methods or materials (type or quantity)
- The introduction of new plant or technology
- New information becoming available
- A change in legislation
- Changes in personnel (e.g. the employment of young or disabled persons)
- & when the results of monitoring (accidents, ill-health &/or the working environment) are not as expected.

- Q.6. A contractor is to be selected to drain & clear a section of canal.
a. **Identify** the information that might be required to establish the suitability of the contractor. **(4)**

Answer

- Experience of the type of job and industry.
- References
- Enforcement history.
- Safety management System / policy
- Competent Advice
- Risk Assessment and method statements
- Accident record
- Trade / Professional body membership
- Employee competence
- Selection and management of sub-contractors
- Liaison with the client
- Monitoring and supervision
- Insurance.

- Q.6. b. **Describe** the hazards associated with the draining & cleaning operation **(8)**

Answer

- Falls into the water
- Entrapment in silt or mud
- Collapse of the canal sides
- Flooding
- Hazards arising from the use of equipment
- & health hazards such as leptospirosis (Weil's disease)

- Q.6. c. **Outline** suitable controls to minimise the risk from the hazards identified **(8)**

Answer

The suitable control measure are by the provision of:

- Buoyancy aids & rescue equipment
- Access equipment, appropriate protective equipment
- Appropriate personal protective equipment
- Edge protection & shoring of the canal banks
- Pumps against the risk of flooding
- & information to employees on the risks to their health & the precautions to be taken.

- Q.7. **Outline** the possible risks to health & safety associated with laying paving slabs in a busy high street **(8)**

Answer

- Trapped fingers, foot injuries & musculoskeletal problems from handling slabs
- The possibility of being struck by traffic
- Injuries from the use of cutting discs (e.g. contact with the disc & being struck by flying particles)
- The effects of exposure to noise, vibration, dust & wet cement
- & the increased likelihood of tripping.

- Q.8. **Outline** the factors that may increase risks to pregnant employees in the workplace **(8) (Or)**
An employee who works on a production line has notified her employer that she is pregnant
Outline the factors that the employer should consider when undertaking a specific risk assessment in relation to this employee **(8)**

Answer

- Exposure to chemicals such as pesticides, lead & those that cause intracellular changes (mutagens) or affect the embryo (teratogens)
- Biological exposures (e.g. hepatitis)
- Exposure to physical agents such as ionising radiation & extremes of temperature
- Manual handling
- Ergonomic issues relating to prolonged standing or the adoption of awkward body movements
- Stress
- & issues associated with the use of personal protective equipment

Q.9. **Outline** the factors to consider when assessing the risks to a long distance delivery drive. **(8)**

Answer

- Job:
- The duration of the journey
- The demands of the route (complexity, road conditions, etc)
- Means of communication & security issues (e.g. potential for violence)
- The Individual:
- Physical & psychological capabilities of the driver to cope with the demands of the job, taking into account the level of training provided.
- The Vehicle:
- Maintenance & breakdown provision,
- & the design & layout of the cab.
- & The Load:
- Nature of the load, (e.g. hazardous, heavy, etc)
- The means of handling materials
- & the emergency procedures in place

Q.10. **Identify Eight** sources of information that might be usefully consulted when developing a safe system of work **(8)**

Answer

- Legislation
- Approved codes of practice & official guidance
- Manufacturer's' information
- British, European, international & industry standards
- & direct contact with enforcement agencies & professional bodies
- In-house standards
- The results of risk assessment & job safety analysis
- & accident & health surveillance data

Q.11. a. **Explain** the meaning of the term "safe system of work" **(2)**

Answer

- A step-by-step procedure, taking into account hazards, Controls, Essential equipment, PPE & training.
- Or for one based on the integration of people, equipment, materials & the environment to produce an acceptable level of safety.

Q.11. b. **Describe** the enforcement action that could be taken by an enforcing authority when a safe system of work has not been implemented **(6)**

Answer

- The issue of an improvement notice when a breach of statutory duty requirement has been identified, allowing safety to be improved within a given time period
- or a prohibition notice where there is a risk of serious personal injury, which prohibits the use of equipment or a process until the necessary improvements in safety have been completed
- Depending on the circumstances, the enforcing authority could instigate a prosecution for breaches of H&S legislation in a magistrate's court or in serious cases, the Crown Court (or their equivalents in the UK regions)
- Alternatively, the authority might decide that the circumstances demand no more than the provision of verbal advice, possibly followed by formal written confirmation or warning.

Q.12. **Explain**, using examples, the meaning of the following terms.

a. Hazard **(2)**

Answer

- A hazard is "the inherent potential to cause injury or damage to people's health", or 'something with the potential to cause harm'.
- Hazard can be defined to potential to cause injury or damage to people, equipment or material. The various types of hazards are physical, chemical, biological, ergonomic or psychological.

Q.12. **Explain**, using examples, the meaning of the following terms.

b. Risk (3)

Answer

- Risk is “a combination of the likelihood of an occurrence of a hazardous event and the severity of injury or damage to the health of people caused by this event”, or ‘the likelihood that harm will occur and the severity of the harm’.
- Risk is combination of “probability of occurrence of hazard & severity of injury or damage”.

Q.12. **Explain**, using examples, the meaning of the following terms.

c. So far as is reasonably practicable (3)

Answer

- Maintaining the balance of risk (Likely hood & severity of harm) against the cost, in terms of Time, Effort & money for reducing the risk.

Q.13. a. **Identify Two** specific work activities for which a permit-to-work might be needed. (2)

Answer

- In confined spaces
- Work in flammable atmospheres
- Work on electrical equipment
- Hot work
- & maintenance work on dangerous process plant or production machinery.

Q.13. b. **Outline** the key elements of a permit –to-work system (6)

Answer

- The first of which would be a description & assessment of the task to be performed (including the plant involved & the possible hazards)
- This will determine the need for, & nature of, other key elements, namely
- The isolation of sources of energy & inlets
- The additional precautions required (e.g.
- Atmospheric monitoring
- PPE
- Emergency equipment)
- & the duration of the permit
- An essential element of a permit-to-work system is, of course, the operation of the permit itself
- By means of signatures, the permit should be issued by an authorised person & accepted by the competent person responsible for the work
- On completion of the work, the competent person would need to indicate on the permit that the area had been made safe in order for the permit to be cancelled by the authorised person, after which the isolations could be removed.

Q.14. a. **Explain**, using an example, the meaning of the term “risk”. (2)

Answer

- Risk is “a combination of the likelihood of an occurrence of a hazardous event and the severity of injury or damage to the health of people caused by this event”, or ‘the likelihood that harm will occur and the severity of the harm’.
- Risk is combination of “probability of occurrence of hazard & severity of injury or damage”.

Q.14. b. **Outline** the content of a training course for staff who are required to assist in carrying out risk assessments (6)

Answer

- The legal requirements with respect to risk assessment
- The process of identifying hazards & evaluating risks
- The identification & selection of appropriate control measures
- The awareness of the individual’s own limitations & the occasions when specialist assistance might be required
- Assessing sources of information such as ACOPs & in-house information including accident records
- Report writing skills
- The interpretation of regulations & standards
- & the means available for disseminating the outcomes of the assessment

Q.15. a. **Outline** the factors that should be considered when selecting individuals to assist in carrying out risk assessment in the workplace. **(5)**

Answer

- The individual's past experience & training in hazard identification & in carrying out risk assessments
- Their experience of the process or activity carried out in the workplace & their knowledge of the plant & equipment involved
- Their ability to understand & interpret regulations & standards
- Their communication skills
- & their attitude & commitment to the task.

Q.15. b. **Describe** the key stages of a risk assessment **(5)**

Answer

- Identifying the hazards involved in the activity or process
- Identifying the classes of person at risk of harm
- & evaluating the risks arising from the hazards (based on likelihood of harm & probable consequences
- & then taking current controls into account)
- Identifying suitable measures to eliminate or control remaining risks
- Recording the findings of the assessment
- & reviewing & revising the assessment when this becomes necessary

Q.15. c. **Outline** a hierarchy of measures for controlling exposures to hazardous substances **(10)**

Answer

- Elimination of the substance
- Substitution for a less harmful substance or changing the process to avoid harmful exposure
- Segregation of persons or isolation of the process
- The introduction of engineering controls such as ventilation
- & finally, the provision & use of personal protective equipment

Q.16. a. **Identify** the particular requirements of regulation 3 of the MHSWR 1999 in relation to an employer's duty to carry out risk assessments. **(3)**

Answer

- That assessments should be suitable & sufficient
- That they should be reviewed if no longer valid or there have been significant changes
- That the significant findings of an assessment should be recorded if there are 5 or more employees
- & that particular assessments were required in the case of young persons or fire.

Q.16. b. **Outline** the factors that should be considered when selecting individuals to assist in carrying out risk assessments in the workplace. **(5)**

Answer

- The individual's past experience & training in hazard identification & in carrying out risk assessments
- Their experience of the process or activity carried out in the workplace & their knowledge of the plant & equipment involved
- Their ability to understand & interpret regulations & standards
- Their communication skills
- & their attitude & commitment to the task.

Q.17. **Outline** the health, safety & welfare issues that a company might need to consider before introducing a night shift to cope with an increased demand for its products. **(8)**

(Or)

Outline the specific factors that should be considered when assessing the risk to employees working on night shifts **(8)**

Answer

- Circadian rhythm (“body clock”) effects & the need for shift rostering
- The effects of fatigue
- The need to control temperature & lighting to maintain alertness
- & the precautions needed in the employment of pregnant or young workers
- The review of existing risk assessments
- The provision of first-aid
- & emergency arrangements for the night shift & ensuring an adequate level of supervision & access to specialist advice
- & the provision of appropriate travel arrangements for the workers concerned.

Q.18. a. **Explain** the meaning of the term “safe system of work”. **(2)**

Answer

- The integration of people, equipment, materials & the environment to produce an acceptable level of safety
- This involves a step-by-step procedure taking into account hazards, controls, essential equipment, personal protective equipment & training

Q.18. b. **Outline Six** sources of information that might need to be consulted when developing a safe system of work. **(6)**

Answer

External Sources:

- Legislation
- Approved codes of practice & official guidance
- Manufacturers information
- British, European, international & industry standards
- & direct contact with enforcement agencies & professional bodies

Internal Sources:

- In-house standards
- The results of risk assessment
- & job safety analysis
- & accident & health surveillance data

Q.19. a. **Outline** the key stages of a general risk assessment. **(6)** **(Or)**

Identify the key stages of a workplace risk assessment. **(5)**

Answer

- The identification of hazards
- The identification of all persons at risk
- An evaluation of risks arising from the hazards (in terms of likelihood & likely severity of harm)
- A review of the existing precautions
- Setting out proposals for methods to eliminate or control the risks
- Making a record of the findings of the assessment
- & setting a timescale for its review

Q.19. b. **Outline Three** circumstances that might require a risk assessment to be reviewed **(3)**

Answer

- Change In the nature of the method of work.
- If new plant is introduced or existing plant modified.
- & following an accident.
- Change in the legislation.
- If improved control methods become available.
- Or even after a lapse of time.

Q.20. **Outline** the particular risk to health & safety facing employees in an indoor swimming pool. **(8)**

Answer

- Slips, trips & falls
- Falls from height (e.g. into an empty pool or from a lifeguard station)
- Contact with chemicals
- Biological hazards, including fungal or viral infection
- Manual handling
- Noise
- Fatigue & heat stress
- Violent assault
- The use of portable machinery (e.g. cleaning equipment) including the risk of electrocution from such appliances
- &, perhaps more obviously, drowning

Q.21. **Outline** the hazards that might be encountered by bar staff working in a busy town centre public house. **(8)**

Answer

- Noise
- Inhalation of tobacco smoke
- Manual handling of barrels & crates
- The potential for violence from customers
- Psychological stress
- Slips, trips & falls, broken glass
- The use of cleaning materials
- The level & quality of the lighting provided
- & the unsocial working hours

Q.22. a. **Outline** the particular hazards that might be encountered by staff working in a busy hotel kitchen. **(8)**

Answer

Electrical & mechanical hazards associated with machinery such as food mixers & processors |

- Hot surfaces
- Sharp implements
- Wet or obstructed floors increasing the risk of slips, trips & falls
- Boiling water
- & hot cooking oils causing burns
- Manual handling hazards
- Health hazards (e.g. foodstuffs causing allergic reactions)
- & cleaning materials that may be corrosive

Q.23. An accident has been attributed to the failure of an employer to implement an appropriate. Permit – to – work system.

a. **Identify** the key elements of a permit – to – work system. **(6)**

Answer

- A description of the task to be performed
- An indication of the duration of the validity of the permit
- The isolations that need to be made & the additional precautions required
- Details & signature of the person authorising the work
- & an acknowledgement of acceptance by the employee carrying out the task
- The employee would then need to indicate on the permit that the work has been completed & the area made safe in order for the permit to be cancelled.

Q.23. b. **Outline Four** types of work situation that may require a permit – to – work system, giving reasons in **EACH** case. **(8)**

Answer

- Entry into confined spaces
- Hot work
- Specialist maintenance work
- Work on electrical systems
- Excavation work
- & working at height

Q.23. c. **Describe** the actions that an enforcing authority could take in this situation **(6)**

Answer

- The giving of verbal or written advice
- The issue of an improvement notice where there had been a contravention of a statutory provision
- The issue of a prohibition notice if there were in the inspector's opinion, a risk of serious personal injury
- &, ultimately, the initiation of criminal proceedings for any breaches of health & safety legislation

Q.24. **Outline** the hazards that might be encountered by a gardener employed by a local authority parks department. **(8)**

Answer

- The use of chemicals (e.g. pesticides)
- Hazards from machinery (e.g. lawnmowers)
- Manual handling
- Conditions leading to slips, trips & falls
- Biological hazards
- Exposure to extreme weather conditions
- & the hazards arising from
- Stinging insects
- Vicious dogs
- & sharp objects (such as broken glass & thorns)

Q.25. An employee has been injured in a workplace accident. A subsequent investigation by an inspector from the Health & Safety Executive has discovered that no risk assessment for the particular activity exists.

a. **Described** the enforcement actions that would be available to the inspector in such a situation, explaining the grounds for **Each** type of action. **(6)**

Answer

- An improvement notice could be issued where the inspector believes that a statutory requirement is being breached (or that there has been a breach that is likely to be repeated or continued) & would require remedial action to be taken within a given period of time
- A prohibition notice would be appropriate where, in the inspector's opinion, there is a risk of serious personal injury & would prohibit the use of an item of equipment or a process until the action required to reduce the risk has been taken
- The inspector would additionally have the option to prosecute for breaches of health & safety legislation
- Alternatively, where the contravention is considered less serious, the inspector could choose simply to give verbal or written advice on the actions required.

Q.25. b. **Outline** the factors that the employer should take into account when selecting the individuals to assist in carrying out the required risk assessment. **(6)**

Answer

- Experience or training in hazard identification
- & carrying out risk assessments
- Knowledge of the process or activity
- & good communication skills
- Interpret legislation & guidance
- & technical knowledge of the plant or equipment involved

Q.25. c. **Outline** the steps that should be used in carrying out the risk assessment, identifying the issues that would need to be considered at **EACH** stage **(8)**

Answer

- Firstly to define the activity or operation being carried assessed
- & then to identify the hazards involved & the number & types of people likely to be exposed
- This was followed by an evaluation of the risk
- Looking at the likelihood & potential severity of harm
- Assessing the adequacy of the existing control measures where required
- Finally, the results of the assessment would need to be recorded

Q.26. **Outline** the hazards that may be encountered by refuse collectors employed to remove waste from domestic premises & load it into a refuse vehicle. **(8)**

Answer

- The lifting of loads of varying weights (which may be heavy & unwieldy), & their manipulation in restricted spaces such as narrow passageways
- The possibility of slipping or falling because of uneven surfaces, steps, ice or even refuse spillage
- The risk of injury from broken glass & other sharp objects
- The danger of being trapped in the refuse vehicle mechanism or being struck by passing traffic
- The presence of a chemical substance in the refuse
- Biological hazards arising from animal droppings or clinical waste
- & the possibility, however remote, of violence or abusive behaviour from dissatisfied householders (or householders' pets)

Q.27. An organisation has introduced a new work process for which a risk assessment is required under regulation 3 of the Management of Health & Safety at Work Regulations 1999.

a. **Outline** the steps that should be used in carrying out the risk assessment, identifying the issues that would need to be considered at EACH stage. **(8)**

Answer

- The need to define the process or task that is being assessed
- Identifying the hazards involved & determining their possible consequences
- Identifying the number & types of person exposed
- Evaluating the associated risk by assessing the likelihood & severity of harm that could be caused
- Evaluating the adequacy of existing controls & the need for additional measures to secure compliance with legislation & other standards
- & recording the results of the assessment together with making arrangements for its monitoring & review

Q.27. b. **Explain** the criteria that must be met for the assessment to be deemed "suitable & sufficient" **(4)**

Answer

- The comprehensive identification of significant hazards & risks
- The identification & prioritization of measures needed to reduce the risk to an acceptable level
- & ensuring that the assessment remains valid for a reasonable period of time.

Q.27. c. **Identify** the various circumstances that might require a review of the risk assessment. **(6)**

Answer

- A change to the process, work method or substances in use
- The introduction of new & modified plant
- The availability of new information on hazards & risks
- Accidents or incidents of ill-health
- The results of monitoring &/or auditing
- A change in the requirements of legislation
- Action taken or advice given by an enforcement authority or insurance company
- & a change in personnel, in particular the involvement of young persons, new or expectant mothers or disabled persons

Q.28. a. **Explain** the meaning of the term 'safe system of work'. **(2)**

Answer

Few candidates achieved full marks for part (a) of this question and there appeared to be a general lack of understanding of the term 'safe system of work'. Examiners were looking either for an explanation that pointed to a step-by-step procedure - taking into account hazards, controls, essential equipment, personal protective equipment and training - or for one based on the integration of people, equipment, materials and the environment to produce an acceptable level of safety.

Q.28. b. **Describe** the enforcement action that could be taken by an enforcing authority when a safe system of work has not been implemented. **(6)**

Answer

- Providing health and safety advice and guidance to the employer to help him rectify the breach. This will usually be in writing so it can be followed up.
- Issuing legal mandates for the employer to make specified improvements to rectify the breach.
- Issuing legal mandates demanding that work in dangerous situations or with dangerous equipment is stopped until it is made safe.
- Taking out a prosecution against the employer with the intended result of punishment, typically as fines or orders, but may include imprisonment.

Q.29. a. **Identify** three work situations that would require the use of personal eye protection. **(3)**

Answer

Part (a) required candidates to identify three work situations that would require the use of eye protection. Candidates could have chosen situations involving:

- Flying particles.
- Dusts.
- Molten metals.
- Chemical splashes or non-ionising radiation.

Some candidates were too general in their answers, using words such as 'impact' or 'UV light', or referring to general working environments such as 'metalwork shop', rather than identifying specific work situations such as UV light from welding or flying particles from grinding operations.

Q.29. b. **Outline** the range of issues that should be addressed when training employees in the use of personal eye protection. **(5)**

Answer

For part (b), Examiners were looking for issues such as:

- The legal & organisational requirements for eye protection.
- The consequences of employees not wearing it.
- The protection afforded by, and the limitations of, the equipment.
- Compatibility with other forms of personal protective equipment.
- Correct adjustment of the eye protection.
- Methods of keeping it clean.
- Correct storage arrangements.
- Circumstances when replacement should be sought.

Q.30. An employee is required to install glass-fiber insulation in a loft.

a. **Identify four** hazards connected with this activity. **(4)**

Answer

- Fibers from the insulation material (through inhalation or contact)
- Falls through fragile ceilings or from access equipment
- Possible contact with live electrical services in the loft
- Ergonomic & work environment hazards from working in a situation where space might be restricted & which may be hot &/or dusty
- & biological hazards from wasp nests, rodent infestation & bird droppings.

Q.30. **Outline** the precautions that might be taken to minimise harm to the employee. **(4)**

Answer

- The provision & use of respiratory protective equipment
- & laying boards across the joists to prevent falls through the ceiling
- Safe access
- A good standard of lighting
- Frequent work breaks
- & the provision of protection for the skin such as hooded overalls & gloves

Q.31. With reference to the MHSWR 1999.

a. **Outline** the information that an employer must provide to his employees. **(4)**

Answer

- Information on the risks identified by risk assessment (& those notified to him by other employers sharing the same workplace)
- The preventive & protective measures that are in place
- The organization's emergency arrangements
- & the identity of competent persons nominated to implement the emergency procedures

Q.31. b. **Identify FOUR** classes of persons, other than his own employees, to whom an employer must provide health & safety information. **(4)**

Answer

- Other employers' employees & self-employed workers working on the premises
- The employer of those other employees & any employer sharing the same workplace
- Temporary staff, parents of child employees or those on work experience
- & any employment business supplying the employer with temporary staff or contract labour.

Q.32. a. **Identify Six** hazards that might be considered when assessing the risks to the health & safety of a multi-storey car park attendant. **(6)**

Answer

- Fumes &/or dust, impact or crushing by moving vehicles
- Fire (particularly in relation to fuel)
- Extremes of ambient temperature
- The possibility of being subjected to violence, noise form, for instance, car alarms
- Slips, trips or falls (exacerbated perhaps by oil & stairs)
- Biological hazards from the presence of vermin, human waste & hypodermic needles
- & ergonomic hazards caused by the need to stoop or twist in what might be a restricted workplace

Q.33. **Outline** the precautions to be taken to minimise the risk to persons working in cold stores operating at sub-zero temperatures. **(8)**

Answer

- Provision of thermal clothing & restricting the time spent in the cold store, with regular breaks & the availability of warm drinks
- Precautions against being locked in the cold store (e.g. doors capable of being opened from the inside & the installation of alarms)
- Measures to protect the employees against the escape of refrigerant gas
- The need for pre-employment examinations & continuing health surveillance
- & the provision of information & training on the hazards associated with this type of work & the precautions to be taken

Q.34. With respect to undertaking general risk assessment on activities within a workplace.
a. **Outline** the Five key stages of the risk assessment process. Identifying the issues that would need to be considered at EACH stage **(10)**

Answer Part (a)

☐ See Previous Question For Part (a) & Part (b).

Q.34. b. **Identify Four** items of information from within an organisation & **FOUR** items of information from outside the organisation that may be useful when assessing the activities **(8)**

Answer Part (b)

☐ See Previous Question For Part (a) & Part (b).

Q.34. c. **State** the legal requirements for recording workplace risk assessments **(2)**

Answer

- To the requirements contained in the MHSWR 1999 that, where 5 or more people are employed, a record should be kept of the significant findings of the assessment together with information on any group of employees identified by the assessment as being especially at risk
- & additionally to the requirement to record specific assessments carried out for example for noise & asbestos.

Q.35. **Outline** the issues to be addressed in training session on the operations of permit – to work (PTW) system **(8)**

Answer

- The reason for using a permit (such as legal requirements or the presence of a significant risk)
- The activities where a permit would normally be required (for example when carrying out hot work or for entry into a confined space)
- To cover the key elements to be included in a permit such as a description of the task & the precautions to be taken
- The need for & importance of the different types of isolation
- The need to comply with the time limits set by the permit & the procedures to be followed should an extension be required
- The definition & duties of competent & authorized persons
- The procedures to be followed for the issue & hand-back of a permit
- & administrative procedures such as the keeping of records

Q.36. With respect to the management of risk within the workplace.

a. **Explain** the meaning of the term “hierarchy of control” **(2)**

Answer

- List of measures designed to control risks which are considered in order of importance Or effectiveness or measures designed to control risk that normally begin with an extreme of control & end with the use of PPE as a last resort

Q.36. b. **Outline** with examples, the standard hierarchy that should be applied with respect to controlling health & safety in the workplace **(6)**

Answer

- Eliminating the risk either by designing them out or changing the process
- The next step would be the reduction of the risks by, for example, the substitution of hazardous substances with others which were less hazardous
- If this were not possible, then isolation would have to be considered, using enclosures, barriers or worker segregation
- The application of engineering controls such as:
- Guarding,
- The provision of LEV systems,
- The use of reduced voltage systems or residual current devices would follow,
- With the final control measure being the provision of PPE such as ear defenders or RPE

Q.37. **Outline** the factors that may increase the risk of injury to pedestrians who need to walk through a warehouse (8)

Answer

- The condition of the floors with the possible presence of pot holes
- Loose covering
- Oil & water
- Changes in levels such as ramps, kerbs or steps
- The possibility of being struck by moving vehicles because of failure to segregate vehicles from pedestrians by the provision of suitable walkways
- Objects projecting or falling from racking
- A lack of housekeeping
- & a poor standard of lighting.

Q.38. **Outline** the precautions that should be taken in order to ensure the safety of employees undertaking maintenance work in an underground storage vessel (8)

Answer

Pre-work activities would include such issues as

- Undertaking risk assessment
- Isolation – (Permit to work)
- Pre-cleaning
- Purging & testing of the atmosphere within the vessel.

The requirement for carrying out the work safely would include

- Maintaining a safe means of access & egress
- The provision & use of appropriate tools
- Personal protective equipment & lighting
- & continual monitoring

Finally there would be a need to use

- Competent & trained personnel
- Ensure that there is a good communication system between those in the tank & above-ground support staff
- & maintain comprehensive emergency procedures

Q.39. **Outline** the practical precautions that might need to be taken prior to the repair of a large item of process machinery (8)

Answer

- The isolation of any services or pipelines to the machine
- The provision of safe access
- Segregation by the erection of barriers & warning signs
- Ensuring availability & use of appropriate PPE (e.g. gloves, eye protection, etc)
- & employing only skilled & competent personnel to carry out the work.

Q.40. A large item of process machinery is to be cleaned manually with a flammable solvent before being partially dismantled for repair.

a. **Identify FOUR** possible health effects from exposure to the solvent (4)

Answer

- Most organic solvents are associated particularly with dermatitis & narcotic effects that range from headaches & drowsiness through to unconsciousness & death.
- Psychological changes may be experienced.
- Exposure to solvent vapours may also cause irritation of the mucous membranes of the eyes & respiratory tract, & absorption into the body may lead to kidney or liver damage

Q.40. b. **Outline** the safety precautions that should be taken when using such flammable solvents (8)

Answer

- The removal of potential sources of ignition from the site of the operation
- The provision of adequate ventilation
- Limiting the quantity of solvent in use at any one time
- Clear marking of containers
- Ensuring that suitable fire-fighting equipment is in place
- The provision of personal protective equipment such as gloves, & eye & respiratory protection

- & ensuring that operatives are informed of, & trained in, the procedures for the safe use of solvents, especially those concerned with the cleaning of brushes & disposal of rags.

Q.40. c. **Outline** further precautions that might be needed in order to ensure the health & safety of those carrying out maintenance work **(8)**

Answer

- The possible need to operate under a permit-to-work system
- The isolation of services/power to the plant
- The release of stored energy or securing moving parts
- Ensuring hot parts are allowed to cool
- Segregation of the area in which the operation is to be carried out
- The provision of safe access for persons & materials (possibly by providing scaffolding & lifting equipment)
- Ensuring good levels of lighting & ventilation
- The provision of PPE (e.g. hard hats, harnesses & eye & skin protection)
- & the use of competent personnel who have been made fully aware of the precautions
- & emergency procedures necessary
- & are properly supervised

Q.41. a. **Explain** the meaning of the term “permit-to-work” (PTW) **(4)**

Answer

- A document control system requiring written confirmation that certain actions have been carried out to eliminate or control risks before a high risk activity is carried out.

Q.41. b. **Outline** the specific details that should be included in PTW for entry into a confined space**(6)**

Answer

The precautions to be taken

- (e.g. isolating services
- Atmospheric purging
- & the removal of contaminants
- Pre-entry & ongoing atmospheric testing
- Means of communication
- Use of respiratory & other PPE, etc)
- The emergency arrangements & equipment to be provided (e.g. safety lines, Support staff, Resuscitation & other first-aid equipment, welfare facilities, etc)
- Duration of permit
- & to the signatures for authorization & receipt, & for hand-back & cancellation

Q.42. With reference to the Confined Space Regulations (CSR) 1997.

a. **Identify** the meaning of “Confined Space” giving **TWO** workplace examples **(4)**.

Answer

- “Confined Space” is defined as the space by virtue of its enclosed nature, presented a reasonably foreseeable specified risk.
- Examples of confined space are: Chambers, Tanks, Vats, Silos, Pits, Trenches, Sewers, Flues, & wells

Q.42. b. **Identify Four** “specific risks” that may arise from work in a confined space. **(4)**

Answer

- Serious injury due to fire or explosion from flammable substances such as methane
- Leaks from adjoining plant, or oxygen enrichment
- Loss of consciousness due to rise in body temperature (from boilers, furnaces or physical labour)
- Loss of consciousness or asphyxiation caused by presence of gas, fume or vapour
- Loss of consciousness or asphyxiation from lack of oxygen
- Drowning due to increase in the level of liquid
- & asphyxiation due to a free-flowing solid such as coal dust, grain or sand.

Q.43. a. **Identify** the type of hazard against which gloves could offer protection **(4)**

Answer

- Chemical
- Mechanical
- Biological
- Radiation
- & electrical hazards
- Extremes of temperature & wet work.

Q.43. b. **Outline** the practical limitations of using gloves as a means of protection. **(4)**

Answer

- loss of feeling & other tactile issues
- Localised heating of the hand that opens the pores & increases skin permeability
- Invisible leaks
- Allergic response to the glove material
- & entanglement with machinery

Q.44. **Identify Four** different types of hazard that may necessitate the use of special footwear, explaining in EACH case how the footwear affords protection **(4)**

Answer

- Falling objects (steel toe-caps)
- Sharps objects (steel in-soles)
- Chemicals (impermeable material, chemical resistant)
- Molten metal or hot materials (heat resistant boots/shoes & possibly gaiters)
- Electricity (rubber soles)
- Flammable atmospheres (anti-static materials)
- & spread of contamination (washable Wellingtons &/or overshoes)

Q.45. a. **Outline SIX** factors to be considered when selecting suitable eye protection for use at work **(6)**

Answer

- The need to ensure that the type of protective equipment is appropriate for the particular hazard against which protection is required (e.g. Chemical, Impact, UV light, Molten metal)
- In this context, reference was made to the need for the equipment to meet quality & safety standards; in particular that it bears a CE mark.
- Comfort factors were also generally identified, as was compatibility with other equipment, including prescription spectacles

Other relevant factors to be considered include:

- Durability
- Cost
- & maintenance
- & training requirements.

Q.45. b. **Identify ONE** advantage & ONE disadvantage of safety goggles compared with safety spectacles **(2)**

Answer

- **Advantages** include the fact that goggles provide all round protection, particularly against projectiles & chemicals, & tend not to be easily displaced
- **Disadvantages** include the increased tendency of goggles to mist up, the generally higher cost involved & the fact that they may be more uncomfortable than spectacles

Q.46. a. **Identify Three** work situations that would require the use of personal eye protection. **(3)**

Answer

- Flying particles
- Dusts
- Molten metals
- Chemical splashes or non-ionising radiation

Q.46. b. **Outline** the range of issues that should be addressed when training employees in the use of personal eye protection **(5)**

Answer

- The legal & organisational requirements for eye protection
- The consequences of employees not wearing it
- The protection afforded by, & the limitations of, the equipment
- Compatibility with other forms of personal protective equipment
- Correct adjustment of the eye protection
- Methods of keeping it clean
- Correct storage arrangements
- & the circumstances when replacement should be sought

Q.47. a. **State Two** duties of employees under the Personal Protective Equipment at Work Regulations 1992. **(2)**

Answer

Under the PPE Regulations, employees have a duty to

- Use personal protective equipment in accordance with their employer's instructions
- To report any loss or defect in the equipment
- & to return it to the accommodation provided after use.

Q.47. b. **Outline** the factors that could discourage employees from wearing PPE **(6)**

Answer

- Peer pressure
- Lack of management commitment
- Lack of comfort (perhaps exacerbated by a hot or arduous working environment)
- Incompatibility with other protective equipment, lack of training or awareness of the dangers
- & difficulty in obtaining the correct equipment if it is not readily available.

Q.48. **Explain** why personal protective equipment (PPE) should be considered as a last resort in the control of occupational health hazards **(8)**

Answer

Personal Protective Equipment may not provide adequate protection because of such factors as:

- Poor selection
- Poor fit
- Incompatibility with other types of PPE
- Contamination
- & misuse or non-use by employees
- In addition, PPE is likely to be uncomfortable & relies for its effectiveness on a conscious action by the user
- In certain circumstances, its use can actually create additional risks (for instance, warning sounds masked by hearing protection)

ELEMENT 7: ACCIDENT / INCIDENT INVESTIGATION, RECORDING AND REPORTING OF HEALTH & SAFETY INCIDENTS.

Q.1. a. **Identify** FOUR reasons why accidents should be reported & recorded within a workplace. **(4)**

Answer

- To prevent a re-occurrence.
- To meet the requirements of legislation/standards.
- To show management commitment.
- To enable an accident investigation to take place (with the aim of preventing accidents of a similar type)
- & to identify accident trends from later statistical analysis
- To find the underlying causes.

Q.1. b. **Outline** factors that might discourage employees from reporting workplace accidents. **(4)**

Answer

- The person may not be aware of the reporting procedures, or not fully trained in how to report or what to report.
- Due to the trivial nature of the injury (e.g. a small finger cut, which requires no attention or just a plaster). So the person thinks there is no need to record it.
- Perception that management does not take any notice or carry out any corrective action, so the person becomes apathetic & not bothered.
- There may be a blame culture within the organization, where the person may feel they will be blamed for the accident.

Q.2. Replacement & retraining of staff is a cost that an organisation may face following a workplace accident.

a. **List** EIGHT other possible costs to an organisation when an employee has been seriously injured in such an accident. **(8)**

Answer

- First Aid time.
- Prosecution & fines.
- Sickness payments.
- Damage to plant & equipment.
- Loss of production.
- Compensation payments.
- Loss of reputation/customers.
- Accident investigation

Q.3. An employee broke their arm when they fell down a flight of stairs at work while carrying a box of letters to the main room.

a. **State** the requirements for reporting the accident to the enforcing authority **(3)**.

Answer

- Since this was a major injury, which some candidates regrettably did not appreciate, the responsible person should notify the enforcing authority by the quickest practical means (usually telephone, fax or email) & then make a report within 10 days of the accident on the approved form (F2508) or by other approved means such as contact with the Incident Contact Centre

Q.3. b. **Give** the information that should be contained in the accident report. **(5)**

Answer

- The name & job title of the person making the report
- & the name & address of his/her organisation
- The location of the accident & the date & time that it happened
- Details of the injured person including his/her name, address, age & telephone number
- The nature & type of injury sustained
- The cause of the accident, for example falling down stairs
- A description of the accident & the measures subsequently taken to prevent a recurrence.

- Q.4. A driver of a fork-lift truck has been seriously injured after the vehicle overturned.
a. **Outline** the possible **immediate** cause of the accident in terms of both the behaviour of the driver **AND** the conditions of the workplace & work equipment **(10)**.

Answer

The immediate causes for accident depend on:

- Driver behaviour.
- & of the conditions of the workplace
- & work equipment
- Driving errors that could have been identified include
- Cornering too fast
- Hitting obstructions

Driving on uneven ground or across slopes

- Moving with the load elevated
- Instable or excessive
- & colliding with another vehicle
- Causes associated with the workplace & work equipment include
- Potholes
- Ineffective breaks
- Tyres that were under-inflated or in poor condition
- & mechanical failures
- Human factors.

- Q.4. b. **Describe** the underlying factors that may have led to the unsafe acts or conditions **(10)**.
(Or)

A driver of a fork lift truck (FLT) has been seriously injured after the vehicle he was driving overturned.

a. **Outline** the possible immediate causes of the accident associated with

- i. The way in which the vehicle was being driven **(2)**.
- ii. The workplace **(2)**.
- iii. The vehicle **(4)**.

Answer

- A poor or complete lack of risk assessment
- Poor selection of vehicle
- Inadequate driver training
- A failure to develop safe systems of work
- Poor employee selection procedures
- A lack of supervision
- Poor maintenance procedures (for equipment &/or the workplace)
- Failure to introduce a system for reporting defects
- & a general lack of commitment to health & safety on the part of management

- Q.5. With reference to the reporting of injuries, Diseases, & Dangerous Occurrences Regulations 1995.

a. **State** the legal requirements for reporting a fatality resulting from an accident at work to an enforcing authority **(5)**.

Answer

- Notify the enforcing authority by the quickest practicable means
- & then to report the death formally within ten days by an approved means (e.g. on form F2508)
- The responsible person under the Regulations has the duty to submit the report,
- The delayed deaths, up to one year after the original accident, have to be reported whether or not they have been previously reported under another category.

- Q.5. b. **Outline Three** further categories of work-related injury (other than fatal injuries) that are reportable **(3)**.

Answer

- "Major injury" like (fracture of bone, amputation, 24-hours hospitalisation, etc).
- Injured person being away from work
- or unable to do normal work, for more than three consecutive days
- & injuries to non-employees who are taken to hospital for treatment

Q.6. a. **State** the requirements for reporting an “over three-day” injury under the Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 1995 **(2)**.

Answer

- ☐☐A report should be made by the responsible person to the relevant enforcing authority within ten working days of the accident
- ☐☐& that it should be made by an approved means (e.g. on a form F2508 or directly to HSE’s incident Contact Centre)

Q.6. b. Giving reasons in **Each** case, **identify Three** categories of persons who may be considered a useful member of an internal accident investigation team. **(6)**.

Answer

- A senior manager from another department who could act as an independent chairman
- A health & safety practitioner to advise on specific health & safety issues
- An engineer or technical expert to provide any technical information required
- A senior manager from the department where the accident occurred, whose teams were actioned.
- A local manager or supervisor with detailed knowledge of the site of the accident & of the systems of work in place
- & an employee safety representative who, apart from having the statutory right to be involved if trade union-appointed, could represent the injured worker & his/her co-workers.
- The actual composition of such an accident investigation team would, of course, depend on such factors as the seriousness of the accident & its complexities

Q.7. An employee has been seriously injured after being struck by a reversing vehicle in a loading bay.

a. **Give Four** reasons why the accident should be investigated by the person’s employer **(4)**.

Answer

- The primary purpose of investigating an accident is to identify the immediate & root causes in order to prevent similar accidents occurring in the future.
- In this respect, the main reasons for investigation relate to the possible weaknesses in risk assessment processes & other aspects of safety management systems
- Facilitating compliance with legal obligations (including the requirements of the Reporting of Injuries, Diseases & Dangerous Occurrence Regulations 1995 & social security legislation)
- Collecting evidence to defend a civil claim
- Determining economic loss
- & demonstrating management commitment to occupational health & safety

Q.7. b. **Outline** the information that should be included in the investigation report **(8)**.

Answer

- The personal details of the injured party, time & location of the accident.
- Environmental conditions, the work activity at the time of the accident
- The control measures in place
- The precise circumstances of the accident
- The type & extent of injury sustained
- Details of witnesses & copies of their statements where taken
- Drawings & photographs
- Immediate & root causes identified
- Possible breaches of the law
- & the recommendations of the investigation team in relation to remedial action required.

Q.7. c. **Outline Four** possible immediate causes & **Four** possible underlying (root) causes of the accident **(8)**.

Answer

Immediate causes such as:

- Human error or failure to comply with procedures
- Restricted view for the driver
- & environmental conditions such as high noise levels
- Underlying causes could have included:
- Lack of driver &/or other employee training

- Lack of supervision
- Absence of site rules or procedures for the control of reversing vehicles
- Failure to separate vehicular & pedestrian traffic
- & a lack of maintenance of vehicles &/or the workplace

Q.8. With reference to the Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 1995.

a. **List Four** types of major injury **(4)**.

Answer

- Fractures amputations
- Particular eye injuries
- Injuries requiring immediate medical treatment (or loss of consciousness) due to electric shock or exposure to a substance
- & any other injury that requires immediate hospital admission for more than 24 hours

Q.8. b. **Outline** the procedures for reporting a major injury to an enforcing authority **(4)**.

Answer

Major injury must be:

- Notified to the relevant enforcing authority (HSE or local authority) by the quickest practicable means (normally telephone or fax)
- & then reported on an approved form (2508) within 10 days of the accident

Q.9. a. **Identify Two** ill-health conditions that are reportable under the Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 1995 **(2)**.

Answer

- Asbestosis
- Occupational dermatitis
- Occupational asthma
- Tetanus
- Hand-arm vibration syndrome
- or any other 72 diseases & conditions listed in Schedule 3 to RIDDOR 1995.

Q.9. b. **Outline** reasons why employer should keep records of occupational ill-health amongst employees **(6)**.

Answer

- Other than for monitoring purposes &, importantly, to prevent reoccurrences, there are legal reasons for keeping records of occupational ill-health
- It is a requirement under RIDDOR that records of reported diseases are kept for three years
- There may also be a requirement under the Control of Substances Hazardous to Health Regulations 2002 if the ill-health were due to exposure to a hazardous substance requiring health surveillance
- The information contained in a record may additionally be required if there is a subsequent civil claim or if the affected employee is able to claim state benefit for the condition.

Q.10. a. **Explain** why an organisation should have a system for the internal reporting of accidents **(4)**.

Answer

- To meet the requirements of the reporting of Injuries, Diseases, & Dangerous Occurrences Regulations 1995
- So that an investigation may be carried out to prevent a recurrence or to identify weaknesses in the safety management system
- For use in civil claims or to satisfy insurance requirements
- To help in the identification & reduction of loss
- & to inform the review of risk assessments

Q.10. b. **Identify** the reasons why employees may fail to report accidents at work **(4)**.

Answer

- Ignorance of the reporting procedures
- Peer pressure
- Possible retribution by management
- To preserve the company's or department's safety record (particularly when an incentive scheme is in operation)
- To avoid receiving first-aid or medical treatment (for whatever reason)
- over-complicated reporting procedures
- & lack of obvious management response to earlier reported accidents

Q.11. With reference to the Reporting of Injuries, Diseases & Dangerous Occurrences Regulations (RIDDOR) 1995.

a. **Explain**, using **TWO** examples, the meaning of the term "dangerous occurrence" **(4)**.

Answer

- A dangerous occurrence is a specified event (as listed in the Regulations) that has not resulted in a reportable injury but had the potential to do so.
- Example: the collapse of scaffolding & the collapse, overturning or failure of a lift or crane.

Q.11. b. **State** the requirements for reporting a dangerous occurrence **(4)**.

Answer

- Notify the enforcing authority by the quickest practicable means (usually telephone or fax)
- & then make a report on the approved form (F2508) or by other approved means (such as reporting the incident to HSE's Incident Contact Centre by telephone or online) within ten days gained the marks available
- If the event actually led to a reportable injury, then it would not be reported separately as a dangerous occurrence

Q.12. a. **Explain** the meaning of the term "dangerous occurrence" **AND** give **TWO** specific examples of dangerous occurrences that require notification under the RIDDOR 1995 **(4)**.

Answer

- A dangerous occurrence is a specified event (as listed in the Regulations) that has not resulted in a reportable injury but had the potential to do so.
- Example: the collapse of scaffolding & the collapse, overturning or failure of a lift or crane.

Q.12. b. **Identify** the reasons why employees may fail to report accidents at work. **(6)**

Answer

- Unaware of the reporting procedure or no procedures in place
- An unwillingness to give up time or a lack of perception of the importance of accident reporting (perhaps due to lack of training)
- The possibility of retribution & the fear of being disciplined
- An actual or perceived lack of management response when accidents are reported
- To preserve the individual's, the department's or the organization's safety record (particularly if this forms part of a bonus incentive scheme)
- An aversion to first-aid or medical treatment
- A dislike or inability to fill in forms
- & peer pressure from fellow employees, possibly as part of a general safety culture problem

Q.12. c. **Outline** the key points that should be covered in a training session for employees on the reporting of accidents & incidents **(10)**.

Answer

- The classification of accidents & incidents
- (e.g. major
- Minor
- First-aid
- Near-miss etc)
- The reasons for reporting
- (E.g. to meet legal obligations
- To enable an investigation to be carried out that might help to prevent the occurrence of similar incidents
- To meet insurance requirements
- To review risk assessments
- & to compile statistics in order to identify trends)
- Internal reporting procedures
- (e.g. the accidents & incidents that need to be reported
- The method of reporting, including such issues as the person to report to, examples of internal report forms, location of the accident book, etc
- How to complete report forms
- & the name of the person responsible for notifying the enforcing authority)
- Follow-up action:
- (e.g. the use that the organization might make of the reports
- Stressing a “no-blame” culture
- & the possibility of an external investigation by an enforcement authority or an insurance company

Q.13. **Outline** the initial actions that should be taken following a major injury accident at work **(8)**.

Answer

- Isolating services & making the area safe
- Administering first-aid treatment & summoning the emergency services
- Informing the next of kin
- Notifying the enforcement authority by the quickest practical means
- Collecting initial evidence such as photographs & sketches & the names of witnesses
- &, setting up the accident investigation.

Q.14. An employee is claiming compensation for injuries received during an accident involving a fork lift truck (FLT).

a. **Identify** the document information that the employer might draw together when preparing a possible defence against the claim **(8)**.

Answer

- The accident book record, to the RIDDOR form (if applicable) & to an accident investigation report
- Including statements made by witnesses or supervisors
- In terms of demonstrating compliance with statutory & common law duties relevant documents might include
- The organization’s H&S policy
- Risk assessments & any written safe systems of work relating to activity
- Training records
- Statutory examination records (as required by LOLER), maintenance records (PUWER & LOLER)
- Inspection reports & H&S committee minutes
- & documents relating to previous accidents & corrective actions taken
- Information relating to the claimant (e.g. involvement in previous accidents, disciplinary records, etc) could also be relevant

Q.15. An organisation has decided to conduct an internal investigation of an accident in which an employee was injured following the collapse of storage racking.

a. **Outline Four** benefits to the organisation of investigating the accident **(4)**.

Answer

- The primary purpose of investigating an accident is to identify the immediate & root causes in order to prevent similar accidents occurring in the future.
- In this respect, the main reasons for investigation relate to the possible weaknesses in risk assessment processes & other aspects of safety management systems
- Facilitating compliance with legal obligations (including the requirements of the Reporting of Injuries, Diseases & Dangerous Occurrence Regulations 1995 & social security legislation)
- Collecting evidence to defend a civil claim
- Determining economic loss
- & demonstrating management commitment to occupational health & safety

Q.15. b. Giving reasons in **Each** case **identify Four** people who may be considered useful members of the investigation team. **(8)**.

Answer

- A senior manager from another department who could act as an independent chairman
- A health & safety practitioner to advise on specific health & safety issues
- An engineer or technical expert to provide any technical information required
- A senior manager from the department where the accident occurred, whose teams were actioned.
- A local manager or supervisor with detailed knowledge of the site of the accident & of the systems of work in place
- & an employee safety representative who, apart from having the statutory right to be involved if trade union-appointed, could represent the injured worker & his/her co-workers.
- The actual composition of such an accident investigation team would, of course, depend on such factors as the seriousness of the accident & its complexities

Q.15. c. Having identified the team, **outline** the factors that should be considered when planning the investigation. **(8)**.

Answer

- The outcome of the accident
- The type & amount of information already available
- The identification of witnesses
- The preservation & current level of safety of the scene of the accident
- The equipment required for the investigation
- The history of previous similar accidents
- The roles & responsibilities of the team members
- & the time scale for the investigation
- & the format of the subsequent report

Q.16. **Explain** the purpose & benefits of collecting “near-miss” incident data **(8)**.

Answer

- The investigation of “near miss” incidents & the identification of their underlying causes might allow preventive action to be taken before something more serious occurs
- It also gives the right message that all failures are taken seriously by the employer & not just those that lead to injury
- Additionally, it is generally accepted that “near misses” far outnumber injury accidents & can therefore produce more data from which a greater understanding of the deficiencies in existing management systems can be identified & rectified

ELEMENT 8: MONITORING, REVIEW AND AUDITS OF HEALTH AND SAFETY.

1. Question

a. **Outline** the reasons why an organisation should monitor & review the health & safety performance. **(8)**

Model Answer

Part (a)

Among the reasons offered by better candidates were the following:

- To identify substandard H&S practices & conditions (perhaps by means of workplace inspections);
- To identify trends in relation to different types of incident, or incidents in general (by analysis of relevant incident data);
- To compare actual performance with previously set targets; to “benchmark” the organisation’s performance against that of similar organisations or an industry norm;
- To identify whether control measures are in use & to assess their effectiveness; to be able to make decisions on appropriate remedial measures for any deficiencies identified;
- To be able to make decisions on appropriate remedial measures for any deficiencies identified;
- To set priorities & establish realistic targets timescales;
- To assess compliance with legal requirements;
- To be able to provide a Board of Directors or safety committee with relevant information.

2. Question

a. **Identify** EIGHT measures that can be used to monitor an organizations health & safety performance **(8)**

(Or)

Identify Four active & **Four** reactive means by which an organisation can monitor its health & safety performance **(8)**

Model Answer

- Rates of incidents injuries & work-related ill-health;
- Actions to be taken by enforcement authorities;
- The number of civil claims;
- The results of inspections & environmental monitoring;
- Safety audit outcomes;
- The degree of compliance with procedures (such as PPE usage); number of staff trained in H&S;& the results of medical &/or health surveillance

3. A health & safety inspection has been carried out on one of a company’s workshop. The inspection has found a number of unsafe conditions & practices & some positive issues.

a. In addition to the date & time the inspection was carried out, **State** other measures that should also be included in the report to enable management to take action to make an informed decision on possible remedial action to be taken **(12)**

b. **Explain** how the report should be structured & presented in order to make it more effective to increase the likelihood of action being taken **(8)**

Model Answer | Work Book - IGC-1 82

Part (a)

- Details of the person carrying out the inspection
- The purpose & scope of the question including the workshop activities that were covered
- Matters requiring urgent action with justification for the priority
- Actions taken at the time of the inspection such as stopping an activity or isolating plant or equipment
- Details of potential breaches of H&S legislation
- & the implications for possible enforcement action
- A summary of previous accidents & enforcement at the premises
- Details of realistic remedial actions & their cost
- Together with the benefits that might accrue such as improving the H&S culture of the organisation

Part (b)

- It is important that the report should be well & clearly written & not contain jargon.
- Additionally it should be divided into sections with appropriate headings & should contain, preferably at the beginning, an executive summary of the key findings
- After an introduction detailing the scope of the inspection, the sections which followed should
- Highlight the significant risks that were found
- Contain an explanation of the possible breaches of legislation & their potential consequences
- Set out a draft plan for remedial action with a suggested timescale for completion
- & finally summarise concisely the conclusions & recommendations
- Appendices might be added if they were thought to be relevant & helpful

4. An employer intends to implement a programme of regular workplace inspection following a workplace accident.

- a. **Outline** the factors that should be considered when planning such inspections **(6)**
- b. **Outline Three** additional proactive monitoring methods that could be used in the monitoring methods that could be used in the monitoring of health & safety performance **(6)**
- c. **Identify** the possible costs to the organisation as a result of the accident **(8)**

Model Answer

Part (a)

- The nature of the hazards in the workplace
- The composition & competence of the inspection team
- The areas to be inspected & the routes to follow
- The timing & frequency of the inspections
- The relevant legislation & standards against which the results of the inspection would be judged
- The preparation & provision of checklists
- & the action that should follow the inspections (such as the procedures for reviewing & prioritising any remedial measures found to be necessary)

Part (b)

- Audits (involving a comprehensive & independent examination of all aspects of an organisation's health & safety management systems against stated objectives)
- Safety surveys (focusing on particular activities)
- Sampling (involving the targeting of specific areas)
- Tours (where unscheduled, less formal workplace inspections are carried out to check on issues such as housekeeping or the use of personal protective equipment)
- Benchmarking (where an organisation's performance in certain areas is compared with that of similar organisations)
- & environmental & health monitoring

Part (c)

- The cost of loss production
- Time lost by the employee/employees involved in the accident
- Clean-up costs & the possible repair of damaged plant & equipment
- A possible increase in insurance premiums
- The cost of legal representation in any subsequent proceedings & the fine that might be imposed
- Any part of compensation payments as a result of civil action (i.e. any excess agreed with the insurance company)
- & intangible costs such as the effects on the business image of the organisation & the morale of the workforce as a whole

5. Question.

- a. **Explain** how accident data can be used to improve health & safety performance within an organisation **(4)**
- b. **Outline Two** proactive monitoring methods that can be used when assessing an organisation's health & safety performance **(4)**

Model Answer**Part (a)**

- Accident data can be used to identify trends & problem areas in order that resources can be allocated & appropriate remedial actions taken.
- Accident data enable comparisons to be made with others ("benchmarking"), & how they can be used to provide information to employees & to focus & stimulate discussion at safety committee meetings.

Part (b)

- Safety Inspection (is a straight forward observation of a workplace & / or the activities or equipment within it).
- Safety Auditing (is a thorough, critical examination of an organizations safety management systems and procedures).
- Safety surveys (which generally focus on a particular procedure, such as the introduction of new equipment)
- Safety tours (which are unscheduled, less formal inspections to check on general workplace standards)
- Safety sampling (which is an organised system of checking defined areas of the workplace, & often particular health & safety issues, on a regular basis)
- Benchmarking (where performance is compared with that of similar organisations)

- The various means of environmental monitoring (e.g. air monitoring, noise assessments)
- & the results of health surveillance

6. A production manager intends to implement a programme of regular workplace inspections.

a. **Outline** the factors that should be considered when planning the inspection programme **(6)**

b. **State** the main health & safety issues that might be included on the inspection checklist **(8)**

c. Other than inspections, **outline Three** proactive methods of monitoring health & safety performance **(6)**

(Or)

Outline Four proactive monitoring methods that can be used in assessing the health & safety performance of an organisation **(8)**

Model Answer

Part (a)

- The composition of the inspection team
- The specific areas of the workplace to be inspected
- The frequency & timings of the inspections
- The possible need to provide personal protective equipment to the inspection team
- The preparation of checklists
- Consulting previous inspection reports & researching applicable legislation & standards
- & deciding on procedures to be followed after the inspection to ensure appropriate remedial action is taken

Part (b)

- Machinery safety
- The storage of hazardous substances
- Fire prevention & the procedure to be followed in the event of an emergency
- Ergonomic issues
- Electricity
- Housekeeping
- Welfare provision
- Observation of workers' behaviour
- & the work environment

Part (c)

- Safety Auditing (is a thorough, critical examination of an organizations safety management systems and procedures).
- Safety surveys (which generally focus on a particular procedure, such as the introduction of new equipment)
- Safety tours (which are unscheduled, less formal inspections to check on general workplace standards)
- Safety sampling (which is an organised system of checking defined areas of the workplace, & often particular health & safety issues, on a regular basis)

Benchmarking (where performance is compared with that of similar organisations)

7. Question.

a. **Outline** the main features of a health & safety inspection of a workplace **(4)**

b. **Outline** the main features of a health & safety audit **(4)**

Model Answer

Part (a)

A safety inspection involves the straightforward observation of a workplace &/or the activities or equipment within it.

Hence, a general safety inspection is usually carried out by a manager or employee representative & often aided by the use of a checklist.

May be carried out routinely & has the aim of identifying hazards & assessing the use & effectiveness of control measures.

Part (b)

Safety audit, which is a thorough, critical examination of an organization's safety management systems & procedures.

An audit, on the other hand, is normally a lengthy process carried out by a trained auditor, often someone from outside the organisation

It is a structured way of assessing the H&S performance of an organization by supplying answers to a series of questions, & often involves a scoring system such that improvements can be made

8. Question.

a. **Outline** the strengths & weaknesses of using a checklist to complete a health & safety inspection of the workplace **(4)**

Model Answer

Part (a)

Using a checklist to complete H&S inspection of a workplace enables

- Prior preparation & planning to be made so that the inspection is more structured & systematic
- It reduces the chance that important areas or issues might be overlooked
- & provides an immediate record of findings
- It also ensures a consistent approach by those carrying out the inspection & provides an easy method for comparison & audit

The weaknesses of using a checklist are:

- That over reliance on this method may lead to a blinkered approach by “inspectors” with the possibility that significant risks might be missed
 - That the checklist may not be reviewed & updated to account for changes to work processes or equipment
 - That there is a danger that inspections become routine with no “follow-up” questions being asked
 - That the system is too objectives & restrictive with no scope for peripheral issues to be considered
- & that untrained persons may be tempted to conduct inspections or that the procedure is subject to human error &/or abuse.