



Assessment Guide

Fire Safety Officer

NSQF Level – 5

Sector: Cross Sectoral

Occupation: Fire Safety Engineering & Management

Qualification Pack Code: SSD/VSQ/Q1101

Version: 1.0



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Qualification Structure

To achieve full certification as Fire Safety Officer, trainees must complete all seven units (NOS) and pass assessments. The assessments will comprise of theory & practical tests.

Sl. no	Unit No. (NOS)	Title	Assessment method
001	SSD/VSQ/N1101	Understanding of Fire Accidents	The assessment will be made for the competencies required by the trainee on skills, knowledge & understanding of the core principles of fire accidents, including the science of fire, the fire triangle, and the classification of fire types. Assessment will focus on the candidate's ability to recognize common causes of fire incidents in industrial, construction, and domestic environments, along with the preventive practices that can minimize such risks. The assessment will be based on theory, viva-voice or practical.
002	SSD/VSQ/N1102	Accidents Prevention Methodologies	The assessment will be made for the competencies required by the trainee on skills, knowledge & understanding of accident prevention concepts, including hazard identification, risk assessment, and the application of control measures using the hierarchy of controls. The assessment will be based on theory, viva-voice or practical.
003	SSD/VSQ/N1103	Fire Prevention, Fire Extinguishing Technique & Fire Extinguishers	The assessment will be made for the competencies required by the trainee on skills, knowledge & understanding of fire prevention principles, including



			identification of potential fire hazards, control of ignition sources, safe storage of flammable materials, and adherence to workplace fire safety practices. The assessment will be based on theory, viva-voice or practical.
004	SSD/VSQ/N1104	Fire Safety Equipments, Fire alarms & PPE	The assessment will be made for the competencies required by the trainee on skills, knowledge & understanding of the purpose, types, and correct usage of fire safety equipment, including fire hydrants, hose reels, sprinklers, detectors, and suppression systems. The assessment will be based on theory, viva- voice or practical.
005	SSD/VSQ/N1105	Emergencies, Rescue, Firefighting & Fire Evacuation Plan	The assessment will be made for the competencies required by the trainee on skills, knowledge & understanding of different types of workplace emergencies, including fire, explosion, chemical spill, and structural collapse, along with the appropriate response measures for each. The assessment will be based on theory, viva- voice or practical.



006	SSD/VSQ/N1106	Plan & Organize Fire Emergency Protocols	The assessment will be made for the competencies required by the trainee on skills, knowledge & understand the ability to plan, structure, and implement effective fire emergency protocols in accordance with statutory requirements and organizational safety policies. The assessment will be based on theory, viva- voice or practical.
007	DGT/VSQ/N0102	Employability Skills	The assessment will be made for the competencies required by the trainee on skills, knowledge & understanding required by the professionals to generic skill in getting employment, financial dealing, digital literacy and communication with employer or customer. The assessment will be based on theory, viva- voice or practical.

Guidance for assessors

This qualification provides the performance criteria, skills and knowledge required to perform for the job role of Fire Safety Officer at NSQF Level 5. The role is referred to as 'Fire Safety Officer.'

Brief job description: A Fire Safety Officer is responsible for developing and implementing fire safety policies and procedures, identifying fire hazards, conducting fire risk assessments, training employees and ensuring safety of people and property against fire hazards. The officer is responsible to ensure compliance with fire safety regulations & codes, conduct fire safety inspection, investigate fire incidents, and develop emergency response plans, fire exits and fire drills.

Personal attributes: The professional should be mentally and professionally fit to take responsibility for compliances of fire safety standards, rules and meet the fire safety standards at the workplace with his/her integrity, objectivity, independence, knowledge of law, expression and code of ethics.



Introduction to assessments:

The assessment will be made based on the competencies required by the trainees to perform the job role of Fire Safety Officer. The assessment will be based on understanding, practical demonstration and on the job training as defined in the performance criteria & practical skill defined in the qualification pack of the job role. The trainees will be required to complete a number of assignments to show their skills & understanding of the subject through theory, demonstration and practical performances.

Grading and pass percentage

1. The assessment consists of two categories:

- a. Practical Assessment – to assess the practical performance skills.
- b. Theory Assessment – to assess knowledge & understanding of the domain.

2. The weightage of the assessment will be:

- a. Practical Assessment – 50%
- b. Theory Assessment – 50%

3. Each NOS for its Performance Criteria (PC) has been assigned marks proportional to its importance. Proportion of marks for Theory and Practical has been marked NOS wise.

4. Questions on practical & theory will be formed in such a way as to provide outcome on maximum Performance Criteria and in proportional way within the NOS.

5. The assessment for the theory part will be based on written questions (short question, multiple choice & viva, or a combination of them) created/approved by the SSDF.

6. The assessment for the practical part will be based on practical conducted for trainees. In case of remote/on-line assessments, the practical's can be carried through proctors or practical questions formulated based on pictorially represented logical questions (based on pictures of practical & logical steps) created/approved by the SSDF.

7. The passing and grading criteria of each NOS & cumulative for QP will be as follows: -

- a. 70% or more than 70% - Grade "A"
- b. 60% or more than 60% but less than 70% - Grade "B"
- c. 50% or more than 50% but less than 60% - Grade "C"
- d. Less than 50% - Grade "Fail."



- e. If individual gets less than 50% and 35% or more in the NOS and overall, 50% or more; individual will be considered “pass” with grade “C” only irrespective of overall marks.
- f. Individuals getting less than 50% in more than one NOS and getting overall marks 50% or more in QP will be put in grade “Fail”.
- g. Any candidate can ask for re-assessment in any of the NOSs or all the NOSs to improve his/her performance within three months from the date of publication of the results and after payment of the assessment fee. But if any candidate wants re-assessment after three months from the date of publication of results, he/she will have to appear in all the NOSs applicable for the qualification.

2.1 Performance/Skill Assessments

The performance/skill assessment will be conducted through demonstration/practical.

SSD/VSQ/N1101: Understanding of Fire Accidents– Performance/Skill Assessment

The trainee should demonstrate practical knowledge of fire science and accident causation. They should be able to explain the fire triangle and different classes of fire, along with the common causes of fire incidents in construction, industrial, and domestic environments. The candidate should also demonstrate familiarity with fire safety signs, alarm systems, and organizational fire policies, as well as explain the significance of fire drills and emergency preparedness in reducing accident severity.

SSD/VSQ/N1102: Accidents Prevention Methodologies–Performance/Skill Assessment

The trainee should demonstrate the ability to apply accident prevention techniques through proactive identification of hazards, unsafe acts, and unsafe conditions in the workplace. The candidate should also demonstrate familiarity with preventive practices such as proper housekeeping, safe use and handling of equipment and materials, adherence to PPE requirements, and conducting routine workplace inspections.

SSD/VSQ/N1103: Fire Prevention, Fire Extinguishing Technique & Fire Extinguishers – Performance/Skill Assessment

The trainee will be evaluated on their knowledge of fire prevention practices, including identification of potential fire hazards, safe storage of flammable substances, control of ignition sources, and adherence to housekeeping and maintenance standards. The candidate should also be able to



demonstrate the correct sequence of fire response actions, such as raising alarms, alerting others, using extinguishers effectively, and assisting in evacuation.

SSD/VSQ/N1104: Fire Safety Equipments, Fire alarms & PPE – Performance/Skill Assessment

The trainee should demonstrate knowledge and practical understanding of various fire safety equipment, including fire hydrants, hose reels, sprinklers, smoke detectors, and suppression systems, along with their functions and applications in different fire scenarios. The trainee should also demonstrate competence in the selection, inspection, and proper use of personal protective equipment (PPE) such as fire-resistant clothing, gloves, helmets, boots, goggles, and respiratory protection during fire and rescue drills.

SSD/VSQ/N1105: Emergencies, Rescue, Firefighting & Fire Evacuation Plan – Performance/Skill Assessment

The trainee should demonstrate the ability to understand and respond effectively to different workplace emergencies such as fire, explosion, chemical incidents, and structural failures. The candidate should also demonstrate familiarity with basic rescue methods, safe evacuation of injured persons, and the correct use of rescue tools and equipment.

SSD/VSQ/N1106: Plan & Organize Fire Emergency Protocols – Performance/Skill Assessment

The trainee should demonstrate their ability to design and implement structured fire emergency protocols in accordance with organizational policies and statutory safety requirements. The trainee will also be evaluated on the correct deployment of fire safety equipment and PPE during simulated emergencies, as well as their ability to review and update protocols based on drill outcomes, risk analysis, or incident learnings.

DGT/VSQ/N0102: Employability Skills

The trainee should demonstrate awareness of employability skills and effectively use job and learning portals. They must understand constitutional values, practice ethical behavior, and follow sustainable practices. The trainee should apply 21st-century skills like time management, critical thinking, and emotional awareness in the workplace. They must communicate clearly in basic English—spoken, written, and read—and prepare a career plan with defined goals. The trainee should follow communication etiquette, work well in teams, and behave inclusively with all genders and PwD, with awareness of the POSH Act.



Performance/Skill Assessments

The assessment will be conducted in a simulated working environment. Due to this fact, the assessors must note that the naturally occurring evidence of competence is unavailable or infrequent. Simulation must be undertaken in a Realistic Working Environment which provides an environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.

Scheduling the practical observations is flexible but to retain integrity of the assessment, they should be conducted as closely as possible to the written assessments.

Trainees are not permitted to use the observation checklist to work when completing the practical tasks but may familiarize themselves with it prior to an assessment.

It will be beneficial to take trainees through what is required in the practical assessments and the way in which each part will be graded. Trainees should have an opportunity to familiarize themselves with the way the tasks are graded.

Trainees may refer to their faculty for guidance on parts of the practical assignments only, though they should be aware that, especially for the practical assessments, the amount of guidance and support they are given may be reflected in the feedback and performance.

Knowledge Assessment

Synoptic test is an MCQ (Multiple Choice Question) test to assess the underpinning knowledge. The synoptic MCQ tests are externally set and externally marked.

This test is to be taken by the trainee after completion of all the units under controlled and invigilated conditions as closed-book test under the supervision of an assessor. Trainees can only achieve whole marks; half marks for partially answered questions are not permitted. Selection of two or more options will be marked as wrong.

The answers should be marked by pen only. The test may be conducted by the assessor in the oral mode, if required, considering the lack of reading and comprehending acumen (skills) of trainees. In such cases, the assessor will mention it on top of the MCQ submitted.



Grading criteria for Performance/Skill Assessments

NOS No.	Title	Performance & Knowledge Assessment Duration (Min)	Assessment Marks	Min. Passing marks	Assessment Result (Total Passing Marks)
SSD/VSQ/N1101	Understanding of Fire Accidents	75	100	50% of individual NOS and 50% overall as per NOS weightage	50% of total NOS weightage ≥ Pass 50% of total NOS weightage < Fail
SSD/VSQ/N1102	Accidents Prevention Methodologies	31	100		
SSD/VSQ/N1103	Fire Prevention, Fire Extinguishing Technique & Fire Extinguishers	53	100		
SSD/VSQ/N1104	Fire Safety Equipments, Fire alarms & PPE	53	100		
SSD/VSQ/N1105	Emergencies, Rescue, Firefighting & Fire Evacuation Plan	70	100		
SSD/VSQ/N1106	Plan & Organize Fire Emergency Protocols	35	100		
DGT/VSQ/N0102	Employability Skills	44	50		
Total		360 Min	650 Marks		



2.2 Viva Assessment

Trainees may be required to take the viva test for their theory or their practical observation test which is an extended part of the practical observation and assessment. The viva assessments are externally set and externally marked.

2.3 Question papers for synoptic test

The question paper of the synoptic test is a confidential document. It will be held under the custody of SSDF/Assessment Agencies. The assessment agencies can be permitted to prepare the question papers and get them approved from SSDF. The centers need to follow the indenting process to obtain the question paper to administer the test.

2.4 Authenticity

Centers are reminded to check for authenticity of work where trainees may be using texts and the internet to complete tasks.

2.5 Feedback

Assessors must provide feedback on every occasion when a skills observation takes place. A proforma for feedback is included in this assessment guide.

2.6 Trainee records of coursework

Trainees should be encouraged to keep their work carefully in a portfolio or scrapbook. This may be an unfamiliar form of record keeping for some, but it is a good discipline which will benefit them when they progress in their learning and training.

2.7 Assessment sheets

The assessment records will be maintained as per the assessment sheet given in this document.

2.8 Codes of practice

Safe working practices, health and safety and codes of practice associated with the industry must always be adhered to.



2.9 Health and safety

The requirement to follow safe working practices is an integral part of all assessments and it is the responsibility of centers to ensure that all relevant health and safety requirements are in place before trainees start practical assessments.

Should a trainee fail to follow health and safety practice and procedures during an assessment, the assessment must be stopped and the trainee be advised of the reasons. In case of doubts, guidance should be sought from the SSDF.

2.10 Verification of assignments

By using marking checklists, verifiers can check that evidence for an assignment is complete and can ensure that allocation of marks has been fair and beyond dispute.

2.11 Internal quality assurance

Approved centers must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications.

Quality assurance includes initial center approval, qualification approval and the Centre's own internal procedures for monitoring quality. Centers are responsible for internal quality assurance and SSDF and Assessment Agency are jointly responsible for external quality assurance.

Full details and guidance on the internal and external quality assurance requirements and procedures are provided by SSDF from time to time.

The Assessment Agencies are required to retain copies of trainees' assessment records and photographic evidence (in presence of trainee performing task) for three years after assessment. They can be asked by SSDF to provide these evidences as proof of assessment.

2.12 Evidence Collection by the Assessor

- The assessor needs to collect a copy of the attendance for the training done. The attendance sheet needs to be signed by the Training Centre Head.
- The Centre head also needs to declare that all the students appearing in the assessments have a minimum attendance of 70% for the training.
- The assessor needs to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/ State Government.



- The same needs to be mentioned in the attendance sheet. Wherever required, the assessor can authenticate and cross verify trainee's credentials in the enrollment form.
- The assessor needs to punch the trainee's roll number on all the final job pieces of learners. Different sections can have alpha numbering such as if a student's roll number is 123 then the three pieces submitted by that student can be numbered as 123a, 123b and 123c.
- The assessor needs to take a group photograph of all the students along with the assessor standing in the middle and with the Centre name/banner at the back, as evidence.
- The assessor needs to carry a camera to click photographs of the trainees working on the job and give theory exam as evidence with geo tagged, timestamp.
- The assessor also needs to carry a photo ID card.
- In the Assessment Evidence Form (provided after the practical marks sheet), the assessor should place the final photographic evidence in the space provided as evidence, from appropriate angles/sides of the final job piece submitted.

Trainee Guidance

Information for trainees

The assessment requires a trainee to perform a combination of tasks as given below:

The trainee will be required to demonstrate the occupational skills, knowledge, understanding and competencies mentioned in the Qualification Pack.

Before the final assessments

The training partner (TP) will ensure that the trainees are ready for the assessment. The date and time of assessment would be intimated by the SSDF.

The trainee is required to reach the assessment venue at the scheduled date and time. TP is required to circulate/download the information regarding the assessment to the trainee. Failure to reach the assessment venue for the theory or the practical test as per the schedule would be considered absent. In exceptional cases, an assessor can give a maximum of half an hour of concession time for late coming.



The trainee is required to carry their Institutes photo ID card as well as a government issued photo ID card for verification on all days of assessments.

Any misbehavior/unethical practice by a trainee would lead to disqualification of the trainee.

The first assessment will have the theory test followed by practical and may be viva in smaller batches.
(20- 30 trainees)

Assessments

Assessments for the job role of Fire Safety Officer are conducted to gauge and assess the trainees' competencies and professional expertise as well as their skill and knowledge in the specified job role for Fire Safety Officer.

During the practical task, trainees will be assessed on their workmanship, quality of finished products, time management, etc., based on the performance criteria (PC), knowledge and understanding and their professional and Fire Safety Officer soft skills as specified in the qualification pack. They will be graded for all their assessments based on the approved assessment strategy of the Qualification Pack. The performance criteria checklist as a guide for all qualifications is given in Practical Observation Checklist. Assessment tools and sample set of practical, theory & viva questions for each NOS, assessment evidence, overall summary, and NOS wise summary are also listed.

Practical Observation Checklist

Fire Safety Officer
1. Learner Name: _____ 2. Enrolment No: _____ 3. Centre: _____
Guidance to assessors: 1. The assessor must exhibit the observation checklist to the learners before the commencement of the practical and explain to them how the learners will be observed and graded during the practical assessment. However, the learners are not allowed to use the practical observation checklist during the assessment or task. 2. The assessor must ensure that all the tools listed in the "List of Tools" are made available by the center to every learner being assessed.



NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
SSD/VSQ/N1101: Understanding of Fire Accidents	PC-1 Analyze the terms utilized in fire safety such as solid, liquid, and gaseous flammable substances & combustible materials and electrical fires.	5	5	-	-
	PC-2 Differentiate between exothermic and endothermic reactions, determine the oxygen percentage in air, and ascertain the flash point and fire point.	5	5	-	-
	PC-3 Register the various sources that pose fire hazards, including sources that provide fuel for fires and sources that can ignite fires.	5	5	-	-
	PC-4 Identify the Fire triangle & different classes of fire.	10	10	-	-
	PC-5 Identify the common reason for fire accidents and materials & surroundings assisting spread of fire.	10	10	-	-
	PC-6 Decipher transmission of fire, heat transfer by conduction, convection, and radiation.	5	5	-	-
	PC-7 Analyze the four development stages fire- incipient, growth, fully developed and decay.	5	5	-	-



	PC-8 Interview witnesses with an impartial professional who has expertise in conducting interviews to ensure that the information gathered remains unbiased.	5	5	-	-
	NOS Total Marks	50	50	-	-
SSD/VSQ/N1102: Accident Prevention Methodologies.	PC-1 Recognise basic definitions- incident, accident, Injury, lost time injury, unsafe condition, unsafe Acts, dangerous occurrences, hazards, error, near miss.	5	5	-	-
	PC-2 Analyze theories of accident causation- “Heinrich’s Domino theory”, “Heinrich 300-29-1 model, “Ferrell’s Human Factor Model”, “Petersen’s Accident/Incident Model” and “Reason’s Swiss Cheese Model”.	5	5	-	-
	PC-3 Calculate “Frequency rate & Incident rate”. Calculate “Lost time case rate”.	5	5	-	-
	PC-4 Calculate “DART rate”. Calculate “Severity rate”.	5	5	-	-
	PC-5 Interpret “Fault tree analysis” and “Event tree analysis.	3	3	-	-
	PC-6 Interpret and carry out “HAZOP- Hazard, operability analysis” and “Job safety analysis”.	3	3	-	-
	PC-7 Interpret “Hazard Identification and risk assessment”.	3	3	-	-



	PC-8 Analyze the hierarchy of controls, Importance of hierarchy of control & steps in hierarchy of control.	3	3	-	-
	PC-9 Examine the scene and gather information to establish the origin, cause and circumstances of an incident.	4	4	-	-
	PC-10 Perform a real-time risk evaluation and grant access to individuals once the area has been deemed secure.	4	4	-	-
	PC-11 Analyze Maslow's theory of Hierarchical Needs, Herzberg's two-factor theory and McClelland's theory of needs.	5	5	-	-
	PC-12 Analyze Vroom's Theory of Expectancy, McGregor's theory X and theory Y and Alderfer's ERG theory.	5	5	-	-
	NOS Total Marks	50	50	-	-
SSD/VSQ/N1103: Fire Prevention, Fire Extinguishing technique & Fire Extinguisher	PC-1 Interpret fire safety principles prevention, detection and communication, occupant protection, containment and extinguishment.	4	4	10	-
	PC-2 Identify fire doors, Automatic Fire Suppression Systems (AFSS) Lightning protections, procedures & SOPs.	3	3		-
	PC-3 Prevent fire spread by controlling fuel source, ignition source control and oxygen control.	3	3		-



	PC-4 Interpret principles on which fire extinguishers work: cooling, smothering, starving or by interrupting the combustion process to extinguish the fire..	4	4		-
	PC-5 Analyze different types of extinguishing media-water, foam, dry chemical powder, carbon dioxide.	3	3		-
	PC-6 Analyzes types of fire-fighting equipment, its principle of operation.	3	3		-
	PC-7 Perform extinguishing of fire using PASS technique & operation of fire hydrants.	5	5		-
	PC-8 Implement the placement of fire extinguisher at workplace and learn maintenance of fire extinguisher with the help of checklist.	5	5		-
	PC-9 Demarcate fire zone & Restriction on the construction of buildings in each fire zone.	3	3		-
	PC-10 Implement measures such as prohibition of combustible materials, elimination of open fires, utilization of portable fire extinguishers.	3	3		-
	PC-11 Reduce fire load on concrete, use non-combustible ladders, and construct sheds using fire-retardant materials.	3	3		-
	PC-12 Prepare fire plan based on occupancy type, height, and floor area & install fire resistance requirements.	3	3		-
	PC-13 Install fire fighting equipment & fire detection and alarm systems.	4	4		-



	PC-14 Adhere to Regulations for specific materials & develop Emergency preparedness and evacuation plans.	4	4		-
	NOS Total Marks	50	50	10	-
SSD/VSQ/N1104: Fire Safety Equipment, Fire alarms & PPE.	PC-1 Recognise fire fighting system design for water hydrants, sprinklers and pressure requirements in fire hydrants.	4	4	10	-
	PC-2 Recognise foam system of fire hydrants & design for foam hydrant system.	4	4		-
	PC-3 Prepare smoke detectors, fire alarm, NFPA72, emergency lighting, flashing lights.	4	4		
	PC-4 Identify fire hoses, fire buckets, fire and welding blankets, flame orb, sand.	4	4		
	PC-5 Identify requirement of fire fighting equipment as per IS15683.	4	4		
	PC-6 Analyze optimum use of smoke detectors, fire alarm, emergency lighting, flashing lights, its location and monitoring.	5	5		-
	PC-7 Identify technological interventions in fire safety like water mist system, online hydrant pressure monitoring, wireless fire detection system etc.	4	4		-



	PC-8 Recognise latest technological development in fire-prevention & detection like, Thermal Imaging & Augmented Reality (AR).	4	4		-
	PC-9 Identify use of PPEs in fire safety – Helmet, turnout gear, gloves & boots etc.	3	3		-
	PC-10 Identify use of SCBA (Self-contained breathing apparatus), respirators, gas masks.	3	3		-
	PC-11 Use and periodically maintain upkeep of PPEs.	3	3		-
	PC-12 Implement measures such as storing flammable materials in designated areas, using explosion-proof electrical equipment & fire suppression systems.	4	4		-
	PC-13 Ensure proper labeling & handling of hazardous chemicals, ventilation of chemical facilities.	4	4		-
	NOS Total Marks	50	50	10	-
SSD/VSQ/N1105: Emergencies Rescue, Firefighting & Fire Evacuation Plan	PC-1 Analyze emergencies and emergency evacuations.	5	5	20	-
	PC-2 Identify the requirements of escape route as per IS1644.	5	5		-
	PC-3 Plan fire door, emergency directional signages, assembly point, evacuation, evacuation of	5	5		-



	differently abled, evacuation procedure, role of “Fire Marshals”				
	PC-4 Prepare firefighting SOP & drills, equipment deployment, periodical maintenance and mock drills.	4	4		-
	PC-5 Identify local firefighting resources, authority, assistance call from firefighting resources & authorities, communication, assistance to other/neighboring organizations.	3	3		-
	PC-6 Carry out fire fighting drills and fire fighting equipment.	3	3		-
	PC-7 Prepare evacuation & rescue plan and drills, deployment of fire marshals during evacuation & rescue.	5	5		-
	PC-8 Identify responsibility, control & hierarchy in evacuation, evacuation of differently abled, & deployment of fire marshals during evacuation process.	5	5		-
	PC-9 Carry out on emergency evacuation drills, fire exit and assembly areas.	5	5		-
	PC-10 Maintain vehicle as per manufacturer's specification,	5	5		-



	multipurpose fire extinguishers, and ensure easy recognition & accessibility.				
	PC-11 Adhere to the codes and regulations regarding automobile fire safety, safe driving and materials transportation.	5	5		
	NOS Total Marks	50	50		
SSD/VSQ/N1106: Plan & Organize Fire Emergency protocols	PC-1 Plan safety resources, schedules, measures and timelines for readiness as per overall work timelines.	5	5	10	-
	PC-2 Interpret hierarchy of the organization and communication to other team members, co-workers, subordinates & superiors and coordination with other team members.	5	5		-
	PC-3 Identify and allot tasks to subordinates, supervision and coordination among the team members for readiness in sync with overall task & timelines. .	5	5		-
	PC-4 Resource collection, provisioning of resources to team members as per task & timelines.	5	5		-
	PC-5 Communicate & brief to concerned coworkers, subordinates & superiors, provide	5	5		-



	guidance to subordinate & co-workers for timely and correct completion.				
	PC-6 Supervise & monitor progress of work, reporting the progress & completion, preparation of reports & documents.	5	5		-
	PC-7 Set up medical emergency measures, in case of accidents/incidents at workplace.	4	4		-
	PC-8 Set up fire emergency measures as per plans in case of any fire accidents at the workplace.	3	3		-
	PC-9 Set up emergency assembly area, evacuation plan, sign boards and guidance.	3	3		-
	PC-10 Analyze root causes behind major fire accidents happening around India.	5	5		-
	PC-11 Incorporate insights gained from major incidents like avoiding unauthorized construction, utilization of non-combustible materials, adherence to safety regulations, and creation of emergency response strategies.	5	5		-
	NOS Total Marks	50	50	10	-



DGT/VSQ/N0102: Employability Skills	PC- 1 Identify employability skills required for jobs in various industries	0.5	0.5	-	-
	PC- 2 Identify and explore learning and employability portals	0.5	0.5	-	-
	PC- 3 Recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	0.5	0.5	-	-
	PC-4 Follow environmentally sustainable practices	0.5	0.5	-	-
	PC- 5 Recognize the significance of 21st Century Skills for employment	1.5	1.5	-	-
	PC- 6 Practice the 21st Century Skills such as Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life.	1.5	1.5	-	-
	PC- 7 Use basic English for everyday conversation in different contexts, in person and over the telephone.	1	1	-	-
	PC- 8 Read and understand routine information, notes, instructions, mails, letters etc. written in English.	1	1	-	-



	PC- 9 Write short messages, notes, letters, e-mails etc. in English.	1	1	-	-
	PC- 10 Understand the difference between job and career	0.5	0.5	-	-
	PC-11 Prepare a career development plan with short- and long-term goals, based on aptitude.	1	1	-	-
	PC- 12 Follow verbal and non-verbal communication etiquette and active listening techniques in various settings.	1	1	-	-
	PC- 13 Work collaboratively with others in a team.	1	1	-	-
	PC- 14 Communicate and behave appropriately with all genders and PwD.	0.5	0.5	-	-
	PC- 15 Escalate any issues related to sexual harassment at workplace according to POSH Act.	0.5	0.5	-	-
	PC- 16 Select financial institutions, products, and services as per requirement.	0.5	0.5	-	-
	PC- 17 Carry out offline and online financial transactions, safely and securely.	1	1	-	-
	PC-18 Identify common components of salary and compute income, expenses, taxes, investments etc.	0.5	0.5	-	-
	PC- 19 Identify relevant rights and	0.5	0.5	-	-



	laws and use legal aids to fight against legal exploitation.				
	PC- 20 Operate digital devices and carry out basic internet operations securely and safely.	1	1	-	-
	PC- 21 Use e- mail and social media platforms and virtual collaboration tools to work effectively.	2	2	-	-
	PC- 22 Use basic features of word processor, spreadsheets, and presentations.	1	1	-	-
	PC- 23 Identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research.	1	1	-	-
	PC- 24 Develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion.	1	1	-	-
	PC- 25 Identify sources of funding, anticipate, and mitigate any financial/legal hurdles for the potential business opportunity.	1	1	-	-
	PC- 26 Identify different types of customers.	0.5	0.5	-	-
	PC- 27 Identify and respond to customer requests and needs in a professional manner.	0.5	0.5	-	-



	PC- 28 Follow appropriate hygiene and grooming standards.	0.5	0.5	-	-
	PC- 29 Create a professional Curriculum vitae (Résumé).	-	0.5	-	-
	PC- 30 Search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively.	0.5	-	-	-
	PC- 31 Apply to identified job openings using offline /online methods as per requirement.	0.5	0.5	-	-
	PC- 32 Answer questions politely, with clarity and confidence, during recruitment and selection.	0.5	-	-	-
	PC- 33 Identify apprenticeship opportunities and register for it as per guidelines and requirement.	-	0.5	-	-
Total Marks		25	25	-	-
Grand Total		325	325	50	-



Tools, materials, and consumable list

List of Tools and Equipment

Batch Size: 30

S.No	Tools/Equipment Name	Specifications	Quantity for specified batch size
1.	Fire safety equipment, Water fire extinguisher	Nos	1
2.	Stored pressure type fire extinguisher	Nos	1
3.	Chemical foam type fire extinguisher	Nos	1
4.	Mechanical foam type fire extinguisher	Nos	1
5.	CO2 type fire extinguisher	Nos	1
6.	BC type , ABC type	Nos	1
7.	Extension ladder;	Nos	1
8.	All types of branches and Nozzles	Nos	5
9.	Fire hoses	Nos	1
10.	First aid box	Nos	1
11.	All types of small gears	Nos	5
12.	Breathing apparatus (Negative and Positive)	Nos	5
13.	Gas cylinders	Nos	1
14.	Steel back plates	Nos	2
15.	Face mask	Nos	5
16.	Portable fire pump/TFP	Nos	1
17.	All types of coupling;	Nos	5
18.	Hydrant –Stand pipe type;	Nos	1
19.	Fire trays;	Nos	1
20.	Manual call point;	Nos	1
21.	Entry suit / Proximity suit;	Nos	1



22.	Hose reel system;	Nos	1
23.	Hose box	Nos	1
24.	Suction hose;	Nos	1
25.	Suction wrench	Nos	1
26.	Metal strainer;	Nos	1
27.	Ropes 100 ft.;	Nos	1
28.	PPE;	Nos	15
29.	Cooling vest;	Nos	2
30.	Gum boost	Nos	2



Assessment Methods/Tools

SSD/VSQ/N1101: Understanding of Fire Accidents

Practical questions

Total Marks:50

During a fire safety drill in a warehouse, the Fire Safety Officer observes a simulated fire presented in phases.

Perform a role play how to identify the current stage of fire and perform the appropriate safety actions.


Steps

1. Assess the fire scene – Observe smoke density, flame presence, heat levels, and burning materials.
2. Identify the fire stage:
 - (a) Incipient – Early smoke, low heat, no visible flame
 - (b) Growth – Increasing flames, heat buildup
 - (c) Fully Developed – Entire area engulfed in flames
 - (d) Decay – Flames reduce, smoke persists
3. Take appropriate action based on stage:
 - (a) Use extinguisher (Incipient)
 - (b) Raise alarm and begin evacuation (Growth)
 - (c) Confirm full evacuation and coordinate with fire services (Fully Developed)
 - (c) Monitor area and ensure ventilation (Decay)
4. Report to safety control room – Share fire stage identification and actions taken.
5. Participate in debriefing – Evaluate performance, correct errors, and suggest improvements.

B. Multiple choice questions

(5*10=50 marks)

1.	Flammable liquids are classified under Class ____ fires and typically include substances like petrol, diesel, and alcohol. (5 Marks)			
	<input type="checkbox"/>	A. A	<input type="checkbox"/>	B. B
	<input type="checkbox"/>	C. C	<input type="checkbox"/>	D. D
2.	A chemical storage facility reports that a solvent caught fire during summer transport. It was exposed to temperatures just above its flash point. What does this imply? (4 Marks)			
	<input type="checkbox"/>	A. The fire started due to insufficient oxygen	<input type="checkbox"/>	B. The solvent reached ignition temperature
	<input type="checkbox"/>	C. The solvent vapors ignited on encountering a spark	<input type="checkbox"/>	D. The fire point was lower than the flash point

3.	Why should oily rags not be left in corners of a garage? (5 Marks)			
	<input type="checkbox"/>	A. They absorb heat	<input type="checkbox"/>	B. They may self-ignite due to oxidation
	<input type="checkbox"/>	C. They are electrically conductive	<input type="checkbox"/>	D. They block drainage
4.	You are inspecting a canteen kitchen where a fire started in the oil pan and spread to plastic containers. What classes of fire are involved? (4 Marks)			
	<input type="checkbox"/>	A. Class A and B	<input type="checkbox"/>	B. Class B and C
	<input type="checkbox"/>	C. Class C and D	<input type="checkbox"/>	D. Class A and D
5.	<p>Which fire triangle components are visible or implied here? (5 Marks)</p> 			
	<input type="checkbox"/>	A. Heat only	<input type="checkbox"/>	B. Fuel and smoke
	<input type="checkbox"/>	C. Fuel, oxygen, and heat	<input type="checkbox"/>	D. Heat and water
6.	A fire broke out in a garment factory. Investigation showed poor housekeeping, blocked exits, and synthetic fabric piles near the ironing station. What contributed to the spread of fire? (4 Marks)			
	<input type="checkbox"/>	A. Heat source and flammable materials	<input type="checkbox"/>	B. Use of water on fabric
	<input type="checkbox"/>	C. Shortage of extinguishers	<input type="checkbox"/>	D. Fire-resistant walls
7.	The presence of which item in a storage area increases both ignition risk and toxic gas generation? (5 Marks)			
	<input type="checkbox"/>	A. Glass containers	<input type="checkbox"/>	B. Paint cans
	<input type="checkbox"/>	C. Aluminum foil	<input type="checkbox"/>	D. Ceramic pots
8.	Why can people feel the heat of a fire even without touching flames or hot air? (5 Marks)			
	<input type="checkbox"/>	A. Due to heat convection	<input type="checkbox"/>	B. Due to air movement
	<input type="checkbox"/>	C. Due to thermal conduction	<input type="checkbox"/>	D. Due to radiant heat transfer

9.	Arrange the stages of fire development in correct order: (5 Marks)			
	<input type="checkbox"/>	A. Growth → Incipient → Fully Developed → Decay	<input type="checkbox"/>	B. Incipient → Growth → Fully Developed → Decay
	<input type="checkbox"/>	C. Decay → Incipient → Growth → Fully Developed	<input type="checkbox"/>	D. Fully Developed → Growth → Incipient → Decay
10.	After a minor explosion in the chemical storage room, three employees provide different versions of what they saw. What should the fire safety officer do next? (4 Marks)			
	<input type="checkbox"/>	A. Bring in a neutral interviewer to question each witness separately	<input type="checkbox"/>	B. Choose the version from the senior-most employee
	<input type="checkbox"/>	C. Cancel further investigation	<input type="checkbox"/>	D. Share all statements in a group and ask for corrections
11.	A Fire Safety Officer is evaluating a chemical. It emits flammable vapors at 40°C, but the vapors only sustain burning at 46°C. What do these temperatures represent? (4 Marks)			
	<input type="checkbox"/>	A. 40°C = Fire point, 46°C = Flash point	<input type="checkbox"/>	B. 40°C = Flash point, 46°C = Fire point
	<input type="checkbox"/>	C. Both are flash points	<input type="checkbox"/>	D. These values are ignition temperatures



SSD/VSQ/N1102: Accident Prevention Methodologies.

Practical questions

Total Marks:50

During a routine inspection at a construction site, the Fire Safety Officer notices scattered tools, flammable materials, and damaged electrical wiring. Perform hazard identification and risk assessment.

Steps

1. Inspect the site thoroughly – Check for physical, chemical, electrical, and fire hazards (e.g., loose wires, blocked exits, open flames).
2. Identify and classify hazards – Categorize into types (e.g., physical, electrical, chemical) and note the source and location.
3. Assess the risk level – Evaluate the likelihood and potential severity of harm (Low / Medium / High Risk).
4. Recommend control measures – Suggest elimination, substitution, PPE, signage, or procedural changes to reduce risks.
5. Record and report findings – Document hazards, risk ratings, and recommended actions in the HIRA checklist and inform the site supervisor.

B. Multiple choice questions

(50marks)

12	A gas leak occurs and results in an explosion. No one is injured, but machinery is damaged. This is a: (5 Marks)			
	<input type="checkbox"/>	A. Dangerous occurrence	<input type="checkbox"/>	B. Unsafe act
	<input type="checkbox"/>	C. Near miss	<input type="checkbox"/>	D. Incident only
13	Which model emphasizes human error at multiple levels, visualized as gaps in defenses? (5 Marks)			
	<input type="checkbox"/>	A. Ferrell's Human Factor Model	<input type="checkbox"/>	B. Petersen's Model
	<input type="checkbox"/>	C. Reason's Swiss Cheese Model	<input type="checkbox"/>	D. Heinrich's Domino Theory
14	In a construction project, 3 reportable injuries occurred over 600,000 man-hours. What is the frequency rate? (4 Marks)			
	<input type="checkbox"/>	A. $(3 \times 200,000) \div 600,000 = 1$	<input type="checkbox"/>	B. $(3 \times 1,000,000) \div 600,000 = 5$
	<input type="checkbox"/>	C. $(600,000 \times 3) \div 1,000,000 = 1.8$	<input type="checkbox"/>	D. $(3 \div 600,000) \times 100 = 0.5$

15	In one year, a site had 3 cases where workers were assigned restricted duties due to injury. Total man-hours worked = 300,000. What is the DART rate? (4 Marks)			
	<input type="checkbox"/>	A. 0.5	<input type="checkbox"/>	B. 1
	<input type="checkbox"/>	C. 1.5	<input type="checkbox"/>	D. 2
16	A small fire breaks out in a control room. The fire alarm works, but sprinklers fail. The officer wants to map all possible responses and outcomes after this starting point. Which tool should be used? (4 Marks)			
	<input type="checkbox"/>	A. Audit checklist	<input type="checkbox"/>	B. Fault tree
	<input type="checkbox"/>	C. Hazard index	<input type="checkbox"/>	D. Event Tree Analysis
17	Which of the following is most essential when conducting a HAZOP study? (5 Marks)			
	<input type="checkbox"/>	A. Accident report	<input type="checkbox"/>	B. Process flow diagram
	<input type="checkbox"/>	C. Incident frequency chart	<input type="checkbox"/>	D. Safety award list
18	<p>A fire risk is identified near fuel storage due to exposed wiring.</p> <p>Actions taken:</p> <p>A) Workers wear flame-retardant PPE.</p> <p>B) Exposed wires are eliminated.</p> <p>C) Wires are replaced with insulated ones.</p> <p>D) Safety signage and training are introduced.</p> <p>E) Wiring is enclosed in fireproof casing.</p> <p>Arrange the actions in order of effectiveness (top to bottom in the hierarchy of control). (4 Marks)</p>			
	<input type="checkbox"/>	A. B → C → E → D → A	<input type="checkbox"/>	B. C → B → D → A → E
	<input type="checkbox"/>	C. D → E → C → A → B	<input type="checkbox"/>	D. A → D → E → C → B
19	What is the primary role of a Fire Safety Officer during an incident investigation? (5 Marks)			
	<input type="checkbox"/>	A. To notify law enforcement agencies only	<input type="checkbox"/>	B. To examine the scene, gather evidence, and analyze the cause
	<input type="checkbox"/>	C. To manage public relations and press coverage	<input type="checkbox"/>	D. To supervise cleanup and repair activities



20	When should access be granted to a fire-affected area? (5 Marks)			
	<input type="checkbox"/>	A. As soon as fire is extinguished	<input type="checkbox"/>	B. After complete cleaning
	<input type="checkbox"/>	C. Once all risks are evaluated and area is deemed safe	<input type="checkbox"/>	D. Immediately after the fire officer arrives
21	A fire safety officer encourages team building exercises and creates a friendly work environment. Which level of Maslow's hierarchy does this address? (4 Marks)			
	<input type="checkbox"/>	A. Physiological	<input type="checkbox"/>	B. Safety
	<input type="checkbox"/>	C. Love and belonging	<input type="checkbox"/>	D. Esteem
22	Vroom's theory assumes motivation is the result of expectancy, instrumentality, and _____. (5 Marks)			
	<input type="checkbox"/>	A. Capability	<input type="checkbox"/>	B. Valence
	<input type="checkbox"/>	C. Productivity	<input type="checkbox"/>	D. Discipline
SSD/VSQ/N1103: Fire Prevention, Fire Extinguishing technique & Fire Extinguisher				
Practical questions			Total Marks:50	
A new multi-storey commercial building is under review. Perform a role play and demonstrate how to prepare a fire safety plan based on the building's occupancy (office), total floor area, and height, while ensuring installation of appropriate fire-resistant materials and structures.				
Steps <ol style="list-style-type: none"> 1. Assess building details – Gather data on occupancy type (office, residential, industrial), number of floors, total floor area, and number of occupants. 2. Determine fire safety requirements – Refer to NBC norms or local fire safety codes to identify required fire exits, refuge areas, extinguishers, and escape route planning. 3. Design the fire evacuation plan – Include exit paths, signage, assembly points, fire alarm points, and stairwell access clearly marked by floor. 4. Specify fire resistance installations – Identify required use of fire-rated doors, walls, shaft enclosures, and structural elements as per the building's height and occupancy load. 5. Document and share the fire plan – Prepare the plan in layout format and submit to building management and fire department for approval. Ensure display on each floor. 				
Multiple choice questions			(5*10 =50 marks)	
23	A technician stores oily rags near a heat source in a workshop. What fire safety principle is being violated? (4 Marks)			
	<input type="checkbox"/>	A. Containment	<input type="checkbox"/>	B. Extinguishment

	<input type="checkbox"/>	C. Prevention	<input type="checkbox"/>	D. Occupant protection
24	A sprinkler system activates automatically after detecting heat from a fire. This system is classified as: (5 Marks)			
	<input type="checkbox"/>	A. Manual alarm system	<input type="checkbox"/>	B. Fire detection device
	<input type="checkbox"/>	C. Automatic Fire Suppression System	<input type="checkbox"/>	D. Lightning protection system
25	Why is water not recommended for Class B (liquid) or Class C (electrical) fires? (5 Marks)			
	<input type="checkbox"/>	A. It spreads the fuel	<input type="checkbox"/>	B. It conducts electricity
	<input type="checkbox"/>	C. It doesn't smother the fire	<input type="checkbox"/>	D. All of the above
26	An acid cabinet catches fire from nearby faulty wiring. The lab contains electrical panels and chemical drums. Which extinguisher is least suitable in this environment? (4 Marks)			
	<input type="checkbox"/>	A. Water	<input type="checkbox"/>	B. CO ₂
	<input type="checkbox"/>	C. DCP	<input type="checkbox"/>	D. Foam
27	A fire starts on the 5th floor of a building. Firefighters connect their hose to in-built standpipes. Which equipment is being used here? (4 Marks)			
	<input type="checkbox"/>	A. Fire extinguisher	<input type="checkbox"/>	B. Wet riser system
	<input type="checkbox"/>	C. Water mist system	<input type="checkbox"/>	D. CO ₂ flooding system
28	A small fire breaks out in a corridor. A staff member uses a nearby extinguisher. Arrange the correct steps: (5 Marks) A. Reach for the extinguisher mounted on the wall B. Pull the pin and aim at the base C. Squeeze the handle D. Sweep nozzle side to side			
	<input type="checkbox"/>	A. A → B → C → D	<input type="checkbox"/>	B. B → A → D → C
	<input type="checkbox"/>	C. A → C → B → D	<input type="checkbox"/>	D. D → A → B → C
29	According to fire safety standards, the maximum travel distance to a fire extinguisher for Class A fires should generally not exceed: (5 Marks)			
	<input type="checkbox"/>	A. 15 meters	<input type="checkbox"/>	B. 30 meters

	<input type="checkbox"/>	C. 50 meters	<input type="checkbox"/>	D. 70 meters
30	Which of the following building types is typically NOT permitted in Fire Zone 1 (high-risk zone)? (5 Marks)			
	<input type="checkbox"/>	A. Industrial buildings with flammable materials	<input type="checkbox"/>	B. Low-rise residential flats
	<input type="checkbox"/>	C. Fire station	<input type="checkbox"/>	D. Commercial office
31	At a construction site, workers are found smoking near temporary plywood storage. Which of the following is the most effective corrective action? (4 Marks)			
	<input type="checkbox"/>	A. Mark smoking zones away from flammable storage	<input type="checkbox"/>	B. Place water buckets near the plywood storage
	<input type="checkbox"/>	C. Give a verbal warning to the workers	<input type="checkbox"/>	D. Hang a general "No Entry" sign on the site
32	Which of the following materials is considered fire-retardant for constructing temporary sheds? (5 Marks)			
	<input type="checkbox"/>	A. PVC sheet	<input type="checkbox"/>	B. Untreated wood
	<input type="checkbox"/>	C. Asbestos cement board	<input type="checkbox"/>	D. Plastic tarpaulin
33	After a fire audit, it was found that smoke detectors were installed only near exits, but the ignition happened in a central machinery zone. What is the flaw in the fire safety setup? (4 Marks)			
	<input type="checkbox"/>	A. Alarm system not tested	<input type="checkbox"/>	B. Improper zoning of detection systems
	<input type="checkbox"/>	C. Extinguishers too small	<input type="checkbox"/>	D. Poor documentation

SSD/VSQ/N1104: Fire safety equipments, Fire alarms & PPE

A. Practical questions

Total Marks:50

A new office building is being evaluated for fire safety compliance. Demonstrate how to plan the placement and use of smoke detectors, fire alarm systems, emergency lighting, and flashing lights in line with NFPA 72 standards.

Steps

1. Study the floor plan to identify key locations like corridors, staircases, basements, electrical panels, and server rooms where fire detection and alert systems are essential.
2. Mark the placement of smoke detectors on ceilings in escape paths and high-risk rooms; install manual alarm call points near exits and stairwells, ensuring spacing and mounting height match NFPA 72 requirements.
3. Identify and label areas requiring emergency lighting such as stairwells, lobbies, and exit routes; plan the installation of flashing lights in noisy zones and areas accessed by hearing-impaired individuals.
4. Simulate a fire detection scenario to demonstrate the working sequence: detector triggers the alarm, emergency lights switch on, and flashing lights activate to guide evacuation.
5. Prepare a fire safety layout showing device placement, document the installation plan for approval, and explain how regular testing and maintenance ensure readiness.

B. Multiple choice questions

(50 marks)

34

Identify the component marked in red in the image. (5 Marks)


☐

A. Pressure relief valve

☐

B. Standpipe

☐

C. Branch line to sprinkler

☐

D. Booster connection

35

Why is a foam hydrant system preferred over water in flammable liquid fires? (5 Marks)

☐


A. Foam cools faster

☐

B. Foam reacts explosively with liquid



	<input type="checkbox"/>	C. Foam dries faster than water	<input type="checkbox"/>	D. Foam forms a vapor-sealing blanket
36	Which of the following is not addressed under NFPA 72? (3 Marks)			
	<input type="checkbox"/>	A. Fire alarm notification appliances	<input type="checkbox"/>	B. Smoke detector placement
	<input type="checkbox"/>	C. Sprinkler pipe sizing	<input type="checkbox"/>	D. System monitoring protocols
37	During a fire drill, emergency lighting fails after 2 minutes of power loss. Which standard requirement is being violated? (4 Marks)			
	<input type="checkbox"/>	A. NFPA13	<input type="checkbox"/>	B. NFPA72
	<input type="checkbox"/>	C. NFPA70	<input type="checkbox"/>	D. NFPA101
38	During a welding operation in a confined space, sparks begin to fall on flammable packaging nearby. Which equipment should be used immediately? (4 Marks)			
	<input type="checkbox"/>	A. Fire hose	<input type="checkbox"/>	B. Flame orb
	<input type="checkbox"/>	C. Welding blanket	<input type="checkbox"/>	D. Fire alarm
39	As per IS 15683, the minimum test pressure for a portable extinguisher is _____ bar. (5 Marks)			
	<input type="checkbox"/>	A. 2	<input type="checkbox"/>	B. 5
	<input type="checkbox"/>	C. 10	<input type="checkbox"/>	D. 20
40	Why is it important to avoid installing smoke detectors directly above ceiling fans or air vents? (5 Marks)			
	<input type="checkbox"/>	A. It blocks heat radiation	<input type="checkbox"/>	B. Moving air can delay smoke entry into the detector
	<input type="checkbox"/>	C. It increases false alarms	<input type="checkbox"/>	D. Fans reduce detector lifespan
41	A remote fire station uses a dashboard to track hydrant pressure, detector status, and emergency lighting faults across a city. This setup is best described as a: (4 Marks)			
	<input type="checkbox"/>	A. Cloud-based integrated fire safety system	<input type="checkbox"/>	B. Standalone fire response unit

	<input type="checkbox"/>	C. Manual inspection protocol	<input type="checkbox"/>	D. Thermographic surveillance system
42	Firefighters enter a smoke-filled factory at night with limited visibility. Their helmets display heat spots and safe exit paths. Which technologies are being used? (4 Marks)			
	<input type="checkbox"/>	A. Manual charts and gas masks	<input type="checkbox"/>	B. Thermal imaging and AR overlays
	<input type="checkbox"/>	C. CO detectors and extinguishers	<input type="checkbox"/>	D. Flame sensors and drones
43	Identify the image given and its function. (5 Marks)			
				
	<input type="checkbox"/>	A. Fire extinguisher, provides safety against fire hazards	<input type="checkbox"/>	B. Self-contained breathing apparatus, provides protection against oxygen deficiency
	<input type="checkbox"/>	C. Sanitization kit, ensures sanitization and hygiene	<input type="checkbox"/>	D. First Aid kit, provides immediate medical care
44	A factory installs explosion-proof lights in areas storing flammable gases. What is the key benefit of this measure? (5 Marks)			
	<input type="checkbox"/>	A. Minimizes ignition sources and fire risk	<input type="checkbox"/>	B. Saves electricity costs
	<input type="checkbox"/>	C. Provides brighter lighting	<input type="checkbox"/>	D. Makes maintenance easier
45	A facility uses fume hoods for acid handling but stores open drums nearby without exhaust. Which practice is incorrect? (4 Marks)			
	<input type="checkbox"/>	A. Using fume hoods	<input type="checkbox"/>	B. Storing chemicals in closed drums
	<input type="checkbox"/>	C. Lack of ventilation for stored open drums	<input type="checkbox"/>	D. Wearing chemical-resistant gloves



SSD/VSQ/N1105: Emergencies, Rescue, Firefighting & Fire Evacuation Plan

A. Practical questions

Total Marks:50

A fire safety inspection is being conducted at a commercial facility. Demonstrate how to plan the installation and arrangement of fire doors, emergency directional signages, assembly points, evacuation routes—including for differently abled individuals—and define the role of Fire Marshals.

Steps

1. Examine the facility layout and identify escape routes; plan the placement of fire-rated doors at corridor ends and stairwells to prevent fire spread during evacuation.
2. Install emergency directional signages at eye level, clearly showing exit paths, stair directions, and alternate routes, especially in areas with high foot traffic or low visibility.
3. Allocate assembly points in safe open areas away from the building; ensure paths leading to assembly points are obstruction-free and marked with signage.
4. Plan evacuation procedures that include designated support personnel for assisting differently abled individuals—wheelchair users, visually or hearing impaired—using ramps, manual aids, or evacuation chairs where necessary.
5. Assign and brief Fire Marshals on their roles: guiding occupants, checking assigned zones for stragglers, using handheld alarms, and reporting to emergency services upon full evacuation.

B. Multiple choice questions

(50 marks)

46	A chemical leak occurs, but the fire alarm does not activate automatically. What is the correct immediate action? (4 Marks)			
	<input type="checkbox"/>	A. Evacuate and manually raise alarm	<input type="checkbox"/>	B. Wait for the alarm to trigger
	<input type="checkbox"/>	C. Inform maintenance first	<input type="checkbox"/>	D. Open all doors for ventilation
47	What is the minimum clear width of an escape route for a commercial building, as per IS 1644? (4 Marks)			
	<input type="checkbox"/>	A. 0.75 m	<input type="checkbox"/>	B. 1.0 m
	<input type="checkbox"/>	C. 1.2 m	<input type="checkbox"/>	D. 2.0 m
48	Fire doors must be self-closing and have a fire resistance rating of at least _____ minutes. (5 Marks)			
	<input type="checkbox"/>	A. 10	<input type="checkbox"/>	B. 15



	<input type="checkbox"/>	C. 30	<input type="checkbox"/>	D. 45
49	What is the recommended frequency of conducting full-scale fire mock drills in high-risk facilities? (5 Marks)			
	<input type="checkbox"/>	A. Once in 2 years	<input type="checkbox"/>	B. Annually
	<input type="checkbox"/>	C. Every 6 months	<input type="checkbox"/>	D. Only after an incident
50	A factory fire starts near a chemical unit. Your internal team is managing, but wind threatens nearby sites. What is the immediate next step? (4 Marks)			
	<input type="checkbox"/>	A. Call local fire service and alert neighboring organisations	<input type="checkbox"/>	B. Try to suppress smoke only
	<input type="checkbox"/>	C. Shut down operations and leave	<input type="checkbox"/>	D. Inform HR for internal circular
51	During a drill, a worker attempts to fight a fire with a CO ₂ extinguisher in a basement. Within seconds, he feels dizzy. What critical factor was ignored? (4 Marks)			
	<input type="checkbox"/>	A. CO ₂ extinguisher was expired	<input type="checkbox"/>	B. It should have been a foam extinguisher
	<input type="checkbox"/>	C. It should have been a foam extinguisher	<input type="checkbox"/>	D. The alarm was not raised
52	Which of the following is the correct order in rescue planning? (5 Marks) 1. Identify high-risk areas 2. Assign Fire Marshals 3. Create evacuation routes 4. Conduct drills			
	<input type="checkbox"/>	A. 1 → 3 → 2 → 4	<input type="checkbox"/>	B. 3 → 2 → 1 → 4
	<input type="checkbox"/>	C. 2 → 1 → 3 → 4	<input type="checkbox"/>	D. 1 → 2 → 4 → 3
53	In a fire emergency, two Fire Marshals try to direct the same group of people, giving conflicting instructions. Panic increases. What caused this confusion? (4 Marks)			



	<input type="checkbox"/>	A. Low alarm volume	<input type="checkbox"/>	B. Failure in establishing clear chain of command
	<input type="checkbox"/>	C. Missing evacuation signage	<input type="checkbox"/>	D. Untrained occupants
54	During evacuation drills, staff must move quickly and calmly toward the designated _____ without using elevators. (5 Marks)			
	<input type="checkbox"/>	A. Control room	<input type="checkbox"/>	B. Break room
	<input type="checkbox"/>	C. Assembly point	<input type="checkbox"/>	D. Main entrance
55	A fire safety officer notices that the fire extinguisher is mounted too high on the vehicle and partially hidden behind equipment. What should be corrected first? (4 Marks)			
	<input type="checkbox"/>	A. Replace the extinguisher with a larger one	<input type="checkbox"/>	B. Ensure it's multipurpose
	<input type="checkbox"/>	C. Relocate it for visibility and accessibility	<input type="checkbox"/>	D. Apply a red sticker over it
56	Which regulation governs the safe transport of dangerous goods by road in India? (5 Marks)			
	<input type="checkbox"/>	A. NFPA 72	<input type="checkbox"/>	B. IS 15683
	<input type="checkbox"/>	C. Rule 129 of Central Motor Vehicles Rules, 1989	<input type="checkbox"/>	D. Agreement on Dangerous Goods by Road



SSD/VSQ/N1106: Plan & Organize Fire Emergency protocols

Practical questions

Total Marks:50

As part of a safety awareness training, the Fire Safety Officer is asked to analyze real-life major fire accidents in India and demonstrate how to identify their root causes to help prevent similar incidents in the future.

1. Select and study 2–3 major fire incidents in India (e.g., Uphaar Cinema, AMRI Hospital, Kamala Mills fire) using reports, news articles, or official investigation summaries.
2. List out immediate causes like electrical faults, blocked exits, illegal storage of flammable material, or lack of fire exits observed in each case.
3. Investigate and identify root causes such as negligence, non-compliance with safety codes, poor maintenance, or absence of fire safety audits.
4. Compare findings across incidents to identify common patterns or recurring failures (e.g., faulty wiring, overcrowding, poor evacuation planning).
5. Present recommendations to prevent recurrence—such as mandatory inspections, public awareness, stricter licensing, or training for staff.

B. Multiple choice questions

(50 marks)

57

If a fire safety officer fails to align safety measures with the project timeline, the most immediate risk is: (5 Marks)

☐

A. Delay in procurement

☐

B. Breach of design protocols

☐

C. Absence of preventive controls during active work

☐

D. Inefficiency in budgeting

58

A fire marshal identifies an urgent safety risk but informs only his peers, assuming the safety officer will eventually find out. What crucial step was missed? (4 Marks)

☐

A. Training of coworkers

☐

B. Communication as per hierarchy

☐

C. Approval for equipment use

☐

D. Assignment of duties

59	<p>A fire safety officer assigns inspection duties but does not verify if team members have completed them. The next day, a major non-compliance is found.</p> <p>What was the officer's failure? (4 Marks)</p>			
	<input type="checkbox"/>	A. Inadequate hazard identification	<input type="checkbox"/>	B. Lack of team briefing
	<input type="checkbox"/>	C. Improper use of equipment	<input type="checkbox"/>	D. Failure in supervision after task allotment
60	<p>Which action ensures timely readiness for an upcoming safety drill? (4 Marks)</p>			
	<input type="checkbox"/>	A. Notifying staff after the drill starts	<input type="checkbox"/>	B. Distributing equipment based on task schedule
	<input type="checkbox"/>	C. Using expired equipment in remote areas	<input type="checkbox"/>	D. Storing all items in the site office without access
61	<p>A senior gives last-minute guidance during a live fire drill. Some members panic due to unclear roles. What caused this? (4 Marks)</p>			
	<input type="checkbox"/>	A. Low team attendance	<input type="checkbox"/>	B. Poor pre-drill planning and briefing
	<input type="checkbox"/>	C. Equipment malfunction	<input type="checkbox"/>	D. Excessive training sessions
62	<p>A supervisor consistently monitors team activities and updates a shared report dashboard daily. What does this practice ensure? (5 Marks)</p>			
	<input type="checkbox"/>	A. Accurate and real-time tracking of task completion	<input type="checkbox"/>	B. Increased administrative burden without operational benefit
	<input type="checkbox"/>	C. Elimination of physical inspections	<input type="checkbox"/>	D. Reduced coordination among teams
63	<p>A bleeding incident occurs. The supervisor directs the team to call for help but doesn't initiate any immediate care. What was missing in the response? (4 Marks)</p>			
	<input type="checkbox"/>	A. Lack of incident logging	<input type="checkbox"/>	B. Emergency contact list was not visible
	<input type="checkbox"/>	C. Absence of trained on-site first responders	<input type="checkbox"/>	D. Alarm system was not activated on time

64	<p>Arrange the correct sequence during a fire drill: (5 Marks)</p> <p>1. Sound the fire alarm</p> <p>2. Follow evacuation routes</p> <p>3. Reach assembly area</p> <p>4. Conduct headcount</p>			
	<input type="checkbox"/>	A. 1 → 3 → 2 → 4	<input type="checkbox"/>	B. 1 → 2 → 3 → 4
	<input type="checkbox"/>	C. 2 → 1 → 4 → 3	<input type="checkbox"/>	D. 2 → 1 → 4 → 3
65	<p>The primary purpose of an assembly area is to ensure _____ after evacuation. (5 Marks)</p>			
	<input type="checkbox"/>	A. Headcount and accountability	<input type="checkbox"/>	B. Equipment check
	<input type="checkbox"/>	C. shift briefing	<input type="checkbox"/>	D. Risk assessment
66	<p>A fire breaks out in a banquet hall during an event. Investigation reveals synthetic decorations, blocked exits, and no fire suppression system. What is the most likely root cause? (5 Marks)</p>			
	<input type="checkbox"/>	A. Overcrowding during peak hours	<input type="checkbox"/>	B. Decorative lighting failure
	<input type="checkbox"/>	C. Lack of mandatory fire clearance and pre-event inspection	<input type="checkbox"/>	D. Use of flammable materials and inadequate fire safety infrastructure
67	<p>Using _____ materials in construction can significantly reduce the risk of fire spread. (5 Marks)</p>			
	<input type="checkbox"/>	A. Flammable	<input type="checkbox"/>	B. Non-combustible
	<input type="checkbox"/>	C. Corrosive	<input type="checkbox"/>	D. Insulating



DGT/VSQ/N0102: Employability Skills

Practical questions

Total Marks:30

Demonstrate how to behave respectfully and appropriately with colleagues of all genders and with Persons with Disabilities (PwD), promoting an inclusive and safe work environment.

B. Multiple choice questions

(20 marks)

68	Which type of entrepreneur would most likely start a fire extinguisher manufacturing unit? (5 Marks)			
	<input type="checkbox"/>	A. Trading entrepreneur	<input type="checkbox"/>	B. Industrial entrepreneur
	<input type="checkbox"/>	C. Corporate intrapreneur	<input type="checkbox"/>	D. Social entrepreneur
69	Which of the following actions demonstrates secure internet usage during report submission? (5 Marks)			
	<input type="checkbox"/>	A. Using public Wi-Fi without login	<input type="checkbox"/>	B. Sharing passwords over messaging apps
	<input type="checkbox"/>	C. Uploading reports via company VPN or encrypted platform	<input type="checkbox"/>	D. Clicking pop-up ads for faster upload
70	Which of the following is a correct and inclusive practice when conducting safety briefings? (5 Marks)			
	<input type="checkbox"/>	A. Avoiding eye contact with PwDs to not make them uncomfortable	<input type="checkbox"/>	B. Asking PwDs to wait for separate instructions
	<input type="checkbox"/>	C. Addressing all team members equally and checking if accommodations are needed	<input type="checkbox"/>	D. Skipping training for non-operational staff
71	A fire safety officer wants to open a training centre. He sets the price lower than others, runs online ads, and offers weekend classes. Which elements of the 4Ps are being addressed here? (5 Marks)			
	<input type="checkbox"/>	A. Product only	<input type="checkbox"/>	B. Promotion, Place, and Price
	<input type="checkbox"/>	C. Price and Packaging	<input type="checkbox"/>	D. Distribution and Design



Assessment Evidence Form

Trainee name:

Trainee roll number:

Centre name/ Code Date:

This is to confirm that the trainee has handed over the final job to the assessor. (For each task separate sheet can be used).

Assessor to affix photographs of the practical output (end product)

Trainee's signature:

Trainee's name (please print):

Assessor's signature:

Assessor's name (please print):

Centre Head's seal and signature:



Assessment summary

Assessor's comments

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.....

.....

This is to confirm that the trainee has undertaken the assessment for the job role of Fire Safety Officer.

Trainee's signature:

Trainee's name (please print):

Assessor's signature:

Assessor's name (please print):



Centre Head's seal and signature:

Trainee's photo ID (other than the Institute ID):

Assessment completion date:



Assessment Summary Sheet

 SAFETY SKILL DEVELOPMENT FOUNDATION ASSESSMENT SUMMARY SHEET Qualification Pack – Fire Safety Officer 												
Training Provider:					Batch ID:				Training Centre			
Affiliation No.									Name & Address:			
Candidate Detail:					Roll No.:				Roll No.:			
					Name:				Name:			
Assessment Summary:												
NOS No.	Weightage of the NOS	Allotted (Marks)			Marks Obtained				Marks Obtained			
		Skill (Practical)	Knowledge		Skill (Practical)	Knowledge			Skill (Practical)	Knowledge		
			Theory	Project		Theory	Project	% per Nos		Theory	Project	% per Nos
SSD/VSQ/N1101	20%	50	50	0								
SSD/VSQ/N1102	10%	50	50	0								
SSD/VSQ/N1103	15%	50	50	0								
SSD/VSQ/N1104	15%	50	50	0								
SSD/VSQ/N1105	20%	50	50	0								
SSD/VSQ/N1106	10%	50	50	0								
DGT/VSQ/N0102	10%	30	20	0								
Total Marks	100	330	320	0								
		650										
Minimum pass % to qualify	50%	50% in each NOS and 50% overall			Pass/Fail							
Assessors Name:									Signature:			
Assessing Body Representative Name:									Signature:			
Assessment Agency:									Signature:			