



**Standardized Curriculum Form
Ontario, Canada**

**Office of the Fire Marshal and Emergency Management
Curriculum based on
NFPA 1006, Chapter 5, 2013 Edition**

**TECHNICAL RESCUER
(Chapter 5)**

**National Fire Protection Association Standard for
Technical Rescuer Professional Qualifications**

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Enquiries regarding testing and certification should be directed to:

**Manager
Academic Standards and Evaluation Section
Ministry of Community Safety and Correctional Services
Office of the Fire Marshal and Emergency Management
25 Morton Shulman Avenue, 5th Floor
Toronto, Ontario
M3M 0B1
Ph. (647) 329-1090**

January 2016

Components of the Office of the Fire Marshal and Emergency Management Standardized Curriculum Form

The Office of the Fire Marshal and Emergency Management (OFMEM) Standardized Curriculum Forms in Ontario, Canada, are based on internationally-recognized, competency-based, professional qualifications standards through the National Fire Protection Association (NFPA). Columns within this form from pages 4 and onward are composed of:

NFPA Objective

National Fire Protection Association Objectives are major competencies and Job Performance Requirements (JPR) within a professional qualifications standard that learners must acquire before successful completion of voluntary testing and certification. To attain these competencies, the OFMEM is offering flexible training delivery models centered on being accessible, attainable, and affordable.

Requisite Knowledge

Requisite Knowledge is defined as “Fundamental knowledge one must have in order to perform a specific task”. This can be acquired by referring to the various suggested readings described below. Information used to construct multiple choice test questions in the Provincial Certification Exam for TECHNICAL RESCUER (Chapter 5) are derived from these materials.

Requisite Skills

Requisite Skills are defined as “The essential skills one must have in order to perform a specific task”. This can be acquired by referring to the various suggested readings described below along with the latest version of the Office of the Fire Marshal and Emergency Management’s Skills Sheets Booklet for TECHNICAL RESCUER (Chapter 5). This booklet is used by Provincial Examiners to test Requisite Skill requirements for those voluntarily seeking certification to NFPA 1006, Chapter 5, 2013 Edition.

Suggested Readings

Multiple choice test bank questions in the Provincial Certification Exam for TECHNICAL RESCUER (Chapter 5) are derived from the following suggested readings:

<u>Publisher/Title/Edition</u>	<u>Key Word Reference</u>
1. NFPA 1006, <i>Standard for Technical Rescuer Professional Qualifications, 2013 Edition</i>	NFPA 1006, 2013 Ed.
AND	
2. IFSTA, <i>Fire Service Technical Search and Rescue, 8th Edition</i>	IFSTA FSTSR, 8 th Ed.
OR	
3. Jones & Bartlett, <i>High-Angle Rope Rescue Techniques - Levels I & II, 4th Edition</i>	J&B HARRT, 4 th Ed.
4. Jones & Bartlett, <i>Field Guide to Accompany High-Angle Rescue Techniques, 3rd Edition</i>	J&B HAR Guide, 3 rd Ed.

Knowledge Test Weighting (Out of 100%)

This column references percentage of multiple choice questions that will appear on the Provincial Certification Exam for knowledge-based testing for TECHNICAL RESCUER (Chapter 5).

Questions are validated by a Provincial Advisory Committee (PAC), and used for voluntary, knowledge-based testing of those seeking certification to NFPA 1006, Chapter 5, 2013 Edition through the Academic Standards and Evaluation Section of the Office of the Fire Marshal and Emergency Management. A mark of 70% or better is required to receive a “Pass” on the knowledge test.

Skill Objective #

This column references skill objectives that will be evaluated by the Office of the Fire Marshal and Emergency Management, to test Requisite Skill requirements of TECHNICAL RESCUER (Chapter 5) for those voluntarily seeking certification to NFPA 1006, Chapter 5, 2013 Edition.

**Provincial Advisory Committee for TECHNICAL RESCUER
NFPA 1006, Chapter 5, 2013 Edition**

Jeff Attwell

OFMEM, Ontario Fire College, ON (Canada)

Darren Van Zandenbergen

Oakville Fire Department, ON (Canada)

Chris Burke

Milton Fire Department , ON (Canada)

Craig Smith

Guelph Fire Department, ON (Canada)

Steve Staye

Ottawa Fire Department , ON (Canada)

Marc Dube

Toronto Fire Department

Chris Rowland

Toronto Fire Department, ON (Canada)

David Dunt

Barrie Fire and Emergency Service , ON (Canada)

Shaun Sweeny

New Tecumseth Fire Rescue, ON (Canada)

Reno Levesque

Georgina Fire Department, ON (Canada)

Dave Harnish

Ottawa Fire Department, ON (Canada)

John Davidson

Toronto Fire Department

This document has been reviewed and signed-off by the following representatives of the Office of the Fire Marshal and Emergency Management (OFMEM) in Ontario, Canada:

Educational Consultant
Academic Standards and Evaluation Section

Date

Educational Consultant
Academic Standards and Evaluation Section

Date

Section Manager
Academic Standards and Evaluation Section

Date

Fire Marshal and Chief, Emergency Management
Ministry of Community Safety and Correctional Services

Date

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Publications Ontario
(416) 326-5153*

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Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



Course: TECHNICAL RESCUER

Standard: NFPA 1006, Chapter 5, 2013 Edition

NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
5.1 General Requirements					
The job performance requirements defined in Sections 5.2 through 5.5 shall be met prior to being qualified as a technical rescuer relative to the discipline-specific chapters (Chapters 6 through 19) and the designated response area.					
5.2 Site Operations					
5.2.1					
Identify the needed support resources, given a specific type of rescue incident.	Equipment organization and tracking methods	The ability to track equipment inventory	IFSTA FSTSR, 8th Ed. Chapter 3 J&B HARRT, 4th Ed. Chapter 11 J&B HAR Guide, 3rd Ed.	3% of questions	Objective 1
	Lighting resource type(s)	Identify lighting resources and structures for shelter and thermal protection			
	Shelter and thermal control options	Select rehab areas			
	Rehab criteria	Manage personnel rotations			
5.2.2					
Size up a rescue incident, given background information and applicable reference materials	Types of reference materials and their uses	The ability to read technical rescue reference materials	IFSTA FSTSR, 8th Ed. Chapters 1, 3, 5 J&B HARRT, 4th Ed. Chapter 11 J&B HAR Guide, 3rd Ed.	3% of questions	Objective 2
	Availability and capability of the resources	Gather information			
	Elements of an action plan and related information	Relay information			
	Relationship of size-up to the incident management system	Use information gathering resources			
	Information gathering techniques and how that information is used in the size-up process				
5.2.3					
Manage incident hazards, given scene control barriers, personal protective equipment, requisite equipment, and available specialized resources.	Resource capabilities and limitations	The ability to identify resource capabilities and limitations	IFSTA FSTSR, 8th Ed. Chapters 3, 4 J&B HARRT, 4th Ed.	3% of questions	Objective 3



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
			Chapter 11		
	Types and nature of incident hazards	Identify incident hazards	J&B HAR Guide, 3rd Ed.		
	Equipment types and their use	Assess victim viability (risk-benefit)			
	Isolation terminology	Utilize technical references			
	Methods	Place scene control barriers			
	Equipment and implementation	Operate control and mitigation equipment			
	Operational requirement concerns				
	Common types of rescuer and victim risk				
	Risk-benefit analysis methods and practices				
	Types of technical references				
5.2.4					
Manage resources in a rescue incident, given incident information, a means of communication, resources, tactical worksheets, personnel accountability protocol, applicable references, and standard operating procedures.	Incident management system	The ability to implement an incident management system	IFSTA FSTSR, 8th Ed. Chapters 1, 3, 5, 6	5% of questions	Objective 4
			J&B HARRT, 4th Ed. Chapter 11		
	Tactical worksheet application and purposes	Complete tactical worksheets	J&B HAR Guide, 3rd Ed.		
	Accountability protocols	Use reference materials			
	Resource types and deployment methods	Evaluate incident information			
	Documentation methods and requirements	Match resources to operational needs			
	Availability, capabilities, and limitations of rescuers and other resources	Operate communications equipment			
	Communication problems and needs	Manage incident communications			
	Communications requirements	Communicate in a manner so that objectives are met			
	Communications methods and means				
	Types of tasks and assignment responsibilities				
	Policies and procedures of the agency				
	Technical references related to the type of rescue incident				
5.2.5					
Conduct a discipline-specific search, given hazard-specific personal protective equipment, equipment pertinent to search mission, an incident location, and victim investigative information.	Local policies and procedures and how to operate in the site-specific search environment	The ability to enter, maneuver in, and exit the search environment	IFSTA FSTSR, 8th Ed. Chapter 6	5% of questions	Objective 5
			J&B HARRT, 4th Ed.		



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
		Provide for and perform self-escape/self-rescue	Chapter 11 J&B HAR Guide, 3 rd Ed.		
5.2.6					
Perform ground support operations for helicopter activities, given a rescue scenario/incident, helicopter, operational plans, personal protective equipment, requisite equipment, and available specialized resources.	Ground support operations relating to helicopter use and deployment	The ability to provide ground support operations	IFSTA FSTSR, 8 th Ed. Chapter 6 J&B HARRT, 4 th Ed. Chapters 11, 21 J&B HAR Guide, 3 rd Ed.	3% of questions	Objective 6
	Operation plans for helicopter service activities	Review standard operating procedures for helicopter operations			
	Type-specific personal protective equipment	Use personal protective equipment			
	Aircraft familiarization and hazard areas specific to helicopter	Establish and control landing zones			
	Scene control and landing zone requirements	Communicate with aircrews			
	Aircraft safety systems Communication protocols				
5.2.7					
Terminate a technical rescue operation given an incident scenario, assigned resources, and site safety data.	Incident Command functions and resources	Hazard recognition	IFSTA FSTSR, 8 th Ed. Chapters 3, 4, 5 J&B HARRT, 4 th Ed. Chapter 11 J&B HAR Guide, 3 rd Ed.	5% of questions	Objective 7
	Hazard identification and risk management strategies	Risk analysis			
	Logistics and resource management	Use of site control equipment and methods			
	Personnel accountability systems	Use of data collection and management systems			
	AHJ-specific procedures or protocols related to personnel rehab	Use of asset and personnel tracking systems			
5.3 Victim Management					
5.3.1					
Triage victims, given triage tags and local protocol.	Types and systems of triage according to local protocol	The ability to use triage materials, techniques, resources	IFSTA FSTSR, 8 th Ed. Chapter 7 J&B HARRT, 4 th Ed. Chapter 12	2% of questions	Objective 8
	Resource availability	The ability to categorize victims correctly			
	Methods to determine injury severity				
	Ways to manage resources				



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
	Prioritization requirements		J&B HAR Guide, 3 rd Ed.		
5.3.2					
Move a victim in a low-angle environment, given victim transport equipment, litters, other specialized equipment, and victim removal systems specific to the rescue environment.	Types of transport equipment and removal systems	The ability to secure a victim to transport equipment	IFSTA FSTSR, 8 th Ed. Chapters 7, 9 J&B HARRT, 4 th Ed. Chapters 14, 15, 16 J&B HAR Guide, 3 rd Ed.	5% of questions	Objective 9
	Selection factors with regard to specific rescue environments	Assemble and operate environment-specific victim removal systems			
	Methods to reduce and prevent further injuries	Choose an incident-specific transport device			
	Types of risks to rescuers				
	Ways to establish and maintain victim securement				
	Transport techniques				
	Rope rigging applications and methods				
	Types of specialized equipment and their uses				
5.3.3					
Access, assess, stabilize, package, and transfer victims given diagnostic and packaging equipment and an actual or simulated EMS agency.	Victim and scene assessment methods	The ability to use victim immobilization, packaging, and treatment methods appropriate to the situation	IFSTA FSTSR, 8 th Ed. Chapters 7, 9 J&B HARRT, 4 th Ed. Chapters 12, 14, 15, 16 J&B HAR Guide, 3 rd Ed.	3% of questions	Objective 10
	Victim treatment, immobilization, and packaging methods	Provide victim transfer reports, both verbally and in written format			
	Medical information management and communication methods				
5.4 Maintenance					
5.4.1					
Inspect and maintain hazard-specific personal protective equipment, given clothing or equipment for the protection of the rescuers, including respiratory protection, cleaning and sanitation supplies, maintenance logs or records, and such tools and resources as are indicated by the manufacturer's guidelines for assembly or disassembly of components during repair or maintenance.	Functions, construction, and operation of personal protective equipment	The ability to identify wear and damage indicators for personal protective equipment	IFSTA FSTSR, 8 th Ed. Chapter 2 J&B HARRT, 4 th Ed. Chapter 4 J&B HAR Guide, 3 rd Ed.	2% of questions	Objective 11



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
	Use of record-keeping systems of the AHJ	Evaluate operational readiness of personal protective equipment			
	Requirements and procedures for cleaning, sanitizing and infectious disease control	Complete logs and records			
	Use of provided assembly and disassembly tools	Use cleaning equipment, supplies, and reference materials			
	Manufacturer and department recommendations	Select and use tools specific to the task			
	Pre-use inspection procedures				
	Ways to determine operational readiness				
5.4.2					
Inspect and maintain rescue equipment, given maintenance logs and records, tools, and resources as indicated by the manufacturer's guidelines, an equipment replacement protocol, and organizational standard operating procedure.	Functions and operations of rescue equipment	The ability to identify wear and damage indicators for rescue equipment	IFSTA FSTSR, 8th Ed. Chapters 2, 8 J&B HARRT, 4th Ed. Chapters 4, 5 J&B HAR Guide, 3rd Ed.	2% of questions	Objective 12
	Use of record-keeping systems	Evaluate operation readiness of equipment			
	Manufacturer and organizational care and maintenance requirements	Complete logs and records			
	Selection and use of maintenance tools	Select and use maintenance tools			
	Replacement protocol and procedures				
	Disposal methods				
	Organizational standard operating procedures				
5.5 Ropes/rigging					
5.5.1					
Tie knots, bends, and hitches, given ropes and webbing.	Knot efficiency	The ability to tie representative knots, bends, or hitches for the following purposes:	IFSTA FSTSR, 8th Ed. Chapter 8 J&B HARRT, 4th Ed. Chapters 3, 6, 10, 13 J&B HAR Guide, 3rd Ed.	5% of questions	Objective 13
	Knot utilization	(1) End of line loop			
	Rope construction	(2) Midline loop			
	Rope terminology	(3) Securing rope around desired objects			
		(4) Joining rope or webbing ends together			
		(5) Gripping rope			
5.5.2					
Construct a single-point anchor system, given life safety rope and other auxiliary rope rescue	Application of knots	The ability to select rope and equipment	IFSTA FSTSR, 8th Ed. Chapter 8	10% of questions	Objective 14



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
equipment.					
	Rigging principles	Tie knots	J&B HARRT, 4th Ed. Chapters 3, 6, 7 J&B HAR Guide, 3rd Ed.		
	Anchor selection criteria	Rig systems			
	System safety check procedures	Evaluate anchor points for required strength, location, and surface contour			
	Rope construction	Perform a system safety check			
	Rope rescue equipment applications and limitations				
5.5.3					
Place edge protection, given life safety rope or webbing traversing a sharp or abrasive edge, edge protection, and other auxiliary rope rescue equipment.	Materials and devices that can be used to protect ropes or webbing from sharp or abrasive edges	The ability to select protective devices for rope and webbing	IFSTA FSTSR, 8th Ed. Chapter 8 J&B HARRT, 4th Ed. Chapters 4, 5, 17, 18 J&B HAR Guide, 3rd Ed.	3% of questions	Objective 15
	Fall protection measures	Provide personnel fall protection while working near edges			
	Dangers associated with sharp or abrasive edges	Secure edge protection			
	Methods for negotiation of sharp or abrasive edges	Secure ropes or webbing in a specific location			
5.5.4					
Construct a simple rope mechanical advantage system, given life safety rope, carabiners, pulleys, rope grab devices, and auxiliary rope rescue equipment.	Principles of mechanical advantage	The ability to select rope and equipment	IFSTA FSTSR, 8th Ed. Chapters 8, 9 J&B HARRT, 4th Ed. Chapters 6, 16, 18 J&B HAR Guide, 3rd Ed.	11% of questions	Objective 16
	Capabilities and limitations of various simple rope mechanical advantage systems	Tie knots			
	Application of knots	Choose and rig systems			
	Rigging principles	Attach the mechanical advantage system to the anchor system and load			
	System safety check procedures	Perform a system safety check			
5.5.5					
Direct a team in the operation of a simple rope mechanical advantage system in a low-angle raising operation, given rescue personnel, a specified minimum travel distance for the load, an established rope rescue system incorporating a simple rope mechanical advantage system, a load to	Principles of mechanical advantage	The ability to direct personnel effectively	IFSTA FSTSR, 8th Ed. Chapter 9 J&B HARRT, 4th Ed. Chapters 16, 18	3% of questions	Objective 17



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
be moved, and an anchor system.			J&B HAR Guide, 3rd Ed.		
	Capabilities and limitations of various simple rope mechanical advantage systems and low-angle raising operations	Use operational commands			
	Correct operation of simple rope mechanical advantage systems	Analyze system efficiency			
	Personnel assignments	Identify safety concerns			
	Operational commands	Perform system safety check			
5.5.6					
Function as litter tender in a low-angle lowering or hauling operation, given a rope rescue system, a specified minimum travel distance for the litter tender, life safety harnesses, litters, bridles, and specialized equipment necessary for the environment.	Task-specific selection criteria for life safety harnesses	The ability to select and use rescuer harness and personal protective equipment for common environments	IFSTA FSTSR, 8th Ed. Chapter 9 J&B HARRT, 4th Ed. Chapters 2, 12, 14, 15, 16, 18 J&B HAR Guide, 3rd Ed.	4% of questions	Objective 18
	Personal protective equipment selection criteria	Attach the life safety harness to the rope rescue system			
	Variations in litter design and intended purpose	Maneuver across the terrain			
	Low-angle litter attachment principles	Manage the litter while suspended from the rope rescue system			
	Techniques and practices for low-angle environments	Evaluate surroundings for potential hazards			
	Common hazards imposed by the terrain				
5.5.7					
Construct a lowering system, given an anchor system, life safety rope(s), descent control device, and auxiliary rope rescue equipment.	Capabilities and limitations of various descent control devices	The ability to tie knots	IFSTA FSTSR, 8th Ed. Chapter 9	3% of questions	Objective 19



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
	Capabilities and limitations of various lowering systems	Perform rigging			
	Application of knots	Attach to descent control device, anchor system, and load			
	Rigging principles	Perform a system safety check			
	System safety check procedures				
5.5.8					
Direct a lowering operation in a low-angle environment, given rescue personnel, an established lowering system, a specified minimum travel distance for the load, and a load to be moved.	Application and use of descent control devices	The ability to direct personnel	IFSTA FSTSR, 8th Ed. Chapter 9 J&B HARRT, 4th Ed. Chapters 13, 16 J&B HAR Guide, 3rd Ed.	4% of questions	Objective 20
	Capabilities and limitations of various lowering systems in a low-angle	Use operational commands			
	Operation of lowering systems in a low-angle environment	Analyze system efficiency			
	Personnel assignments	Manage movement of the load in a low-angle environment			
	Operational commands	Identify safety concerns in a low-angle environment			
		Perform a system safety check			
5.5.9					
Construct a belay system, given life safety rope, anchor systems, personal protective equipment, and rope rescue equipment.	Principles of belay systems	The ability to select a system	IFSTA FSTSR, 8th Ed. Chapter 9 J&B HARRT, 4th Ed. Chapters 5, 6, 8, 13 J&B HAR Guide, 3rd Ed.	4% of questions	Objective 21
	Capabilities and limitations of various belay devices	Tie knots			
	Application of knots	Perform rigging			
	Rigging principles	Attach to anchor system and load			
	System safety check procedures	Don and use task-specific personal protective equipment			
		Perform a system safety check			
5.5.10					
Operate a belay system during a lowering or raising operation, given an operating lowering or hauling system, a specified minimum travel distance for the	Application and use of belay devices	The ability to tend a belay system as designed	IFSTA FSTSR, 8th Ed. Chapter 9	3% of questions	Objective 22



Office of the Fire Marshal and Emergency Management Standardized Curriculum Form



NFPA Objective	Requisite Knowledge	Requisite Skills	Suggested Readings	Knowledge Test Weighting	Skill Objective #
load, a belay system, and a load.			J&B HARRT, 4th Ed. Chapters 6, 13, 16, 18		
	Proper operation of belay systems in conjunction with normal lowering and hauling operations	Tie approved knots	J&B HAR Guide, 3rd Ed.		
	Operational commands	Assess system effectiveness			
		Properly attach a belay line to a belay device			
		Don and use task specific personal protective equipment			
		Perform a system safety check			
		Manage and communicate belay system status effectively			
5.5.11					
Belay a falling load in a high-angle environment, given a belay system and a dropped load.	Application and use of belay devices	The ability to operate a belay system as designed	IFSTA FSTSR, 8th Ed. Chapter 9	7% of questions	Objective 23
			J&B HARRT, 4th Ed. Chapters 6, 8		
	Effective emergency operation of belay devices to arrest falls	Tie approved knots	J&B HAR Guide, 3rd Ed.		
	Use of personal protective equipment	Use task-specific personal protective equipment			
	Operating procedures	Recognize and arrest a falling load			
		Communicate belay system actuation			
5.5.12					
Conduct a system safety check, given a rope rescue system and rescue personnel.	System safety check procedures	The ability to apply and use personal protective equipment	IFSTA FSTSR, 8th Ed. Chapter 9	2% of questions	Objective 24
	Construction and operation of rope rescue systems and their individual components	Inspect rope rescue system components for damage	J&B HARRT, 4th Ed. Chapters 2, 14, 17		
	Use of personal protective equipment	Assess a rope rescue system for configuration	J&B HAR Guide, 3rd Ed.		
	Equipment inspection criteria	Secure equipment components			
	Signs of equipment damage	Inspect all rigging			
	Principles of rigging	Perform a system safety check			
	Equipment replacement criteria				