

Test and Evaluation Protocol

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Conventional Explosive Ordnance Disposal (EOD) Competency Standards

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Warning

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Foreword

Test and Evaluation Protocols (T&EP) include former workshop agreements for humanitarian mine action produced by the European Centre for Standardization (CEN). They have been produced to support the International Mine Action Standards (IMAS) and have been approved by the IMAS Review Board. T&EP are included in relevant IMAS as the normative reference, which gives them authority within the IMAS system.

In January 2001, the European Centre for Standardization (CEN) created a technical board which it named Working Group (WG) 126. Since then, CEN WG 126 had held a number of workshops to establish Workshop Agreements for mine action topics that had not been covered by the IMAS. The standards for the test and evaluation of metal detectors, machines and personal protective equipment (PPE) are good examples of their work.

In January 2011, CEN formally transferred the ownership rights for the CEN Workshop Agreements (CWA) for humanitarian mine action to UNMAS and the GICHD. As such, these documents have since been updated and relabelled as T&EP for mine action, with a reference to their original name. This is to avoid any confusion with the current CWA produced by CEN. They will be reviewed and amended, when needed, as part of the IMAS review process and approved by the IMAS Review Board.

Introduction

Explosive Ordnance Disposal (EOD) competency standards were first defined in IMAS 09.30. The CEN Workshop Agreement (CWA) 15464:2005 EOD Competency Standards provided a foundation for the mine action community to develop capabilities and policy. This was then adopted within IMAS as recommended practice. In 2014 Test and Evaluation Protocol T&EP 09.30/01/2014 was developed. The CWA specified EOD Competency Standards for levels 1-3, and also referred to a Level 4 qualification in general terms. However, no competency requirements were included at this level.

As post-conflict explosive hazards have evolved there is a greater need to broaden the scope of the EOD competency standards by defining the requirements at levels 1-3 and formalising a new Level 3+ standard that covers specialist EOD activities above those within the level 1-3 capability. The second edition of T&EP 09.30/01/2022 includes 3+ modules on bulk demolitions, advanced explosive theory, chemical ordnance (basic), AFV clearance, aerial bombs and Guided weapons.

The aim of this document is to build upon the original CWA foundation and the first edition of T&EP 09.30/01/2014, and to update the competency requirements for levels 1-3 and 3+. It does not provide specific technical guidance for the disposal of particular EO.

Conventional Explosive Ordnance Disposal (EOD) Competency Standards

1 Scope

This document provides guidance on the competencies needed for EOD Level 1, 2, 3 and 3+ qualifications in mine action as defined in IMAS 09.30.

This document seeks to cover the competencies required for dealing with EO contamination in a mine action context. See T&EP 09.31/01/2019 which covers the competencies required for dealing with IED contamination in a mine action context.

The use of this document will allow mine action programmes and the wider mine action sector to improve the training processes and It also can be used as a tool for planning and assessing the technical expertise of staff. It should also improve the quality management process by enhancing the assessment of training and competency of staff conducting in EOD work.

2 References

A list of normative references is given in Annex A. Normative references are important documents to which references are made in this standard and which form part of the provisions for this standard.

3 Terms, definitions and abbreviations

A complete glossary of all the terms, definitions and abbreviations used in the International Mine Action Standard (IMAS) series, and Test and Evaluation Protocols (T&EPs) is given in IMAS 04.10.

3.1

Test & Evaluation Protocol

An agreed protocol to accompany or supplement an IMAS. It provides advice and information relevant to activities associated with the testing of competence and equipment.

3.2

National Mine Action Authority (NMAA)

Refers to the government entity, often an inter-ministerial committee, in a mine-affected country charged with the responsibility for the regulation, management and coordination of mine action.

Note: In the absence of a NMAA, it may be necessary and appropriate for the UN, or some other recognised international body, to assume some or all of the responsibilities, and fulfil some or all the functions, of a MAC or, less frequently, a NMAA.

3.3

Mine Action Organisation

Refers to any organisation (government, NGO or commercial entity) responsible for implementing mine action projects or tasks. The mine action organisation may be a prime contractor, subcontractor, consultant or agent.

Note: Mine action organisations include Explosive Ordnance clearance and Improvised Explosive Device Disposal organisations.

3.4

Explosive Ordnance Disposal (EOD)

Refers to the detection, identification, evaluation, render safe, recovery and disposal of Explosive Ordnance. EOD may be undertaken:

- a) as a routine part of mine clearance operations, upon discovery explosive ordnance (EO);

b) to dispose of ERW discovered outside hazardous areas, (this may be a single item of ERW, or a larger number inside a specific area); or

c) to dispose of EO which has become hazardous by deterioration, damage or attempted destruction.

3.5

Explosive Ordnance (EO)

Interpreted as encompassing mine action's response to the following munitions:

- Mines
- Cluster Munitions
- Unexploded Ordnance
- Abandoned Ordnance
- Booby traps
- Other devices (as defined by CCW APII)
- Improvised Explosive Devices

Note: Improvised Explosive Devices (IEDs) meeting the definition of mines, booby-traps or other devices fall under the scope of mine action, when their clearance is undertaken for humanitarian purposes and in areas where active hostilities have ceased.

3.6

Explosive Remnants of War (ERW)

Unexploded ordnance (UXO) and abandoned explosive ordnance (AXO).

3.7

Competency Standards

Competencies required to undertake a given task effectively and safely.

3.8

Competence

Combination of knowledge, skills and attitudes necessary to perform a task

4 Conformance

In T&EP, the words 'should' and 'may' are used to convey the intended degree of compliance. This use is consistent with the language used in ISO standards and guides.

In IMAS, 'shall' is used to indicate requirements, methods or specifications that are to be applied in order to conform to the standard. This term is **NOT** used in T&EP, as their contents are purely advisory.

'Should' is used to indicate the preferred requirements, methods or specifications. 'May' is used to indicate a possible method or course of action.

5 Competency Standards

5.1 Purpose of Competency Standards

The purpose of competency standards is to define the minimum occupational competence in terms of the context(s) in which it needs to be applied along with performance criteria, and an explanation of the required knowledge and understanding. Individual competencies or modules of competencies can also be, or form part of, qualifications at different levels, provided that an assessment regime with appropriate evidence or test requirements is used.

The purpose of this document is to provide an accurate assessment tool to enable appropriate recognition of an individual's professional competence. The use of this document will also allow

mine action programmes to enhance the capacity building process by providing a tool for planning and assessing the personal development of staff.

5.2 Application

This document should be applied to improve safety and efficiency in mine action. It is designed to be of benefit for a range of stakeholders including:

- Explosive Ordnance (EO) affected communities, through provision of a common level of competency for organisations and individuals involved in mine action;
- Individuals through provision of internationally recognised mine action qualifications enabling the transfer of skills;
- Mine action organisations through development of internationally recognised standards. Additionally, the T&EP will aid staff recruitment and selection by providing a recognised tool for the assessment of an individual's competence;
- National mine action authorities by providing recognised standards by which to measure the performance of individuals and organisations. Application of this T&EP should enhance the process of measuring national capacity development across different organisations by providing a common understanding of the competencies of staff;
- Donors and the United Nations Agencies who can be confident in the professional capacity of individuals and organisations, either from a funding or international aid perspective; and
- The mine action sector through recording and evaluating the competency possessed by personnel and organisations to ensure effective planning and evaluation, staff development and capacity building. Additionally, adherence to this standard will improve the Quality Management process by enhancing the assessment of training and competency of staff.

5.3 Use of Competency Standards

Competency standards should be used to support NMAA and mine action organisations in defining the competency levels required for conventional EOD as part of EOD operations in any given environment. It can also provide a basis for defining policy, structures, training, operational processes and SOPs.

Any organisation using this document as a best practice reference will need to produce guidance and other supplementary material to define specific competency requirements for different employments as appropriate to the relevant environment.

6 Competence Categories and Modules

The competencies for EOD levels 1-3 in this document are laid out in a series of seven competence categories.

1. Theory & Knowledge
2. Equipment Skills
3. Practical EOD Skills
4. Management & Leadership
5. Deployment & Post Task
6. Reporting & Data
7. Storage & Transport

EOD levels 3+ are divided into six separate modules.

8. Advanced Explosive Theory 3+
9. Bulk Demolitions 3+

- 10. Aerial Bombs 3+
- 11. Guided Weapons 3+
- 12. Chemical Ordnance (Basic) 3+
- 13. AFV Clearance 3+

Each of these categories or modules is broken down into a set of individually numbered 'Competency Clusters' which are unique to their associated category. Some examples include the following:

- 2. Fuses
- 49. Explosive Theory
- 69. Contamination Patterns

Each competency cluster is then broken down into groups of individually numbered 'Competency Roots'. Some examples include the following:

- 4. Artillery
- 14. Explosive Trains
- 40. Pyrotechnic Techniques

The individual competencies are then associated with a 'Level':

- Level 1
- Level 2
- Level 3
- Level 3+

In this way each individual competency is attributed to a unique identifier number as outlined in the examples below.

Number	Competency Category	Competency Cluster	Competency Root	Title	Level Designation
1.2.138.1	Theory & Knowledge	Fuzes	Impact / SQ Fuzes	Arming forces and hazards	1
1.2.138.2	Theory & Knowledge	Fuzes	Impact / SQ Fuzes	Know trigger force	2
1.2.138.3	Theory & Knowledge	Fuzes	Impact / SQ Fuzes	Arming, firing, RSP	3
9.120.403.4	Bulk Demolitions 3+	Theory	Propagation	Determine	3+

The complete competency list can be found in Annex B. Each competency on the list has been assigned a suggested training time (in hours), and suggested test type. This has been included in order to provide broad guidance to organisations wishing to develop EOD training courses to meet IMAS requirements. The final determination on training time, testing, and vocational 'on the job' training should be made by the EOD training organisation based on sound analysis of the context within which trainees will be deployed. Organisations that award qualifications without adhering to the suggested test type and with fewer training hours than suggested may provide written justification as to how the competencies have been delivered to a sufficient standard.

7 Competency requirements and operating categories

The competencies listed are minimum requirements, however, mine action organisations may demand additional competencies from their staff, for which they must be appropriately trained and qualified. According to IMAS 09.30, there are four levels of EOD competency, each requiring different competencies within the differing operating categories. See IMAS 09.30 and 09.31 for definition of EOD and IEDD qualifications level 1, 2, 3 and 3+. Annex B to this document specifies EOD competencies.

7.1 Pre-requisite qualifications

The four levels of competency that have been established represent progressive qualifications which denote increasing degrees of competence based on a combination of formal training and on the job experience.

In order to qualify to train at a given level, a potential trainee should be able to demonstrate that he/she holds specific prerequisite qualifications. There is no prerequisite qualification required to train for EOD Level 1, but for other levels all lower EOD qualifications should be held. Extended courses combining EOD training of more than one level are acceptable although practical or vocational experience is recommended as individuals progress up the levels.

Competency Level	Pre-requisite qualification IMAS		
	EOD 1	EOD 2	EOD 3
EOD 1	-	-	-
EOD 2	X	-	-
EOD 3	X	X	-
EOD 3+	X	X	X

8 Quality and audit process

Based on the selected performance criteria, appropriate assessment tools and procedures should be developed by the mine action organisation. This could for example involve the development of written tests, practical exercises, assessed simulated tasks, or procedures for assessment of actual performance during live operations. Suggested test types are listed for each competency.

9 Responsibilities

9.1 General

On deciding to use this protocol, the competency standards may be implemented taking into consideration the following process as guidance.

9.1.1 Adaptation of Competency Standards by NMAA

The NMAA or organisation acting on its behalf should:

- incorporate this protocol at a national level as part of the national mine action standards;
- apply this protocol to enable development of operational expectations; and
- develop or approve a process that enables an assessment of competence and quality management.

9.1.2 Mine action organisations should:

- a) equate the specific job roles to the levels of competence defined by “IMAS 09.30 Explosive Ordnance Disposal (EOD)” and by this protocol;
- b) develop a system of measuring the competency of their work force. This assessment should be based on the competencies listed in Annex B.

9.1.3 EOD training organisations

The relevant training authority (training school, NGO, commercial company, military unit, etc.) should;

- a) compare the organisation`s procedures, training and current competency assessment processes with the national policy and standards;
- b) develop or adjust training plans based on this comparison;
- c) develop or adjust assessment procedures and material, enabling both assessment of trainees and personnel recruited from external organisations; and
- d) establish and maintain certification procedures so that training completion certificates explicitly list the disciplines on which the individual has been trained and has qualified as competent.

Annex A (Normative) References

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this part of the standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of the standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid ISO or EN:

- a) IMAS 04.10 - Glossary of mine action terms, definitions and abbreviations;
- b) IMAS 07.12 – Quality Management in Mine Action;
- c) IMAS 07.14 – Risk Management in Mine Action;
- d) IMAS 09.30 – Explosive Ordnance Disposal (EOD);
- e) IMAS 09.31 – Improvised Explosive Device Disposal;
- f) T&EP 09.31/01/2019 – Improvised Explosive Device Disposal Competency Standards.

The latest version/edition of these references should be used. GICHD holds copies of all references used in this standard. A register of the latest version/edition of the IMAS series, guides and references is maintained by GICHD, and can be read on the IMAS website (<http://www.mineactionstandards.org/>). NMAA, employers and other interested bodies and organisations should obtain copies before commencing mine action programmes.

Annex B (Normative) Complete Competency List: EOD Level 1- 3 and 3+ Competencies

Competence Number	Competency Category	Competency Cluster	Competency Root	Competency Title	Competency Description	Level Designation	Suggested Training Time ¹ / Suggested Test Type
1. Theory & Knowledge							
1.2.138.1	Theory & Knowledge	Fuzes	Impact / SQ Fuzes	Arming forces and hazards	Understand the likely arming forces for an Impact Fuze and any specific hazards	1	1 / Timed Written Exam
1.2.138.2	Theory & Knowledge	Fuzes	Impact / SQ Fuzes	Know trigger force	Understand which forces may trigger an Impact Fuze in its armed state	2	1 / Visual/Oral
1.2.138.3	Theory & Knowledge	Fuzes	Impact / SQ Fuzes	Arming, firing, RSP	Describe full arming cycle and firing actions of an Impact Fuze and apply this knowledge during RSP selection. Understand key role of creep spring as a holding device for most impact fuzes.	3	1 / Timed Written Exam

¹ Suggested training times are provided in hours.

1.2.140.1	Theory & Knowledge	Fuzes	Mechanical Time Fuzes	Know trigger force	Understand which force may trigger a Mechanical Time Fuze in its armed state	1	1 / Visual/Oral
1.2.140.2	Theory & Knowledge	Fuzes	Mechanical Time Fuzes	Arming forces and hazards	Understand the likely arming forces for a Mechanical Time Fuze and any specific hazards	2	1 / Timed Written Exam
1.2.140.3	Theory & Knowledge	Fuzes	Mechanical Time Fuzes	Arming, firing, RSP	Describe full arming cycle and firing actions for a Mechanical Time Fuze and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.141.1	Theory & Knowledge	Fuzes	Igniferous Time Fuzes	Arming forces and hazards	Understand the likely arming forces for a Igniferous Time Fuze and any specific hazards	1	1 / Timed Written Exam
1.2.141.2	Theory & Knowledge	Fuzes	Igniferous Time Fuzes	Know trigger force	Understand which force may trigger a Igniferous/Pyrotechnic Time fuze in its armed state	2	1 / Visual/Oral
1.2.141.3	Theory & Knowledge	Fuzes	Igniferous Time Fuzes	Arming, firing, RSP	Describe full arming cycle and firing actions of Igniferous/Pyrotechnic Time Fuzes and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.142.1	Theory & Knowledge	Fuzes	Electronic / Multifunction / Proximity	Arming forces and hazards	Understand the likely arming forces for Electronic or Electro Mechanical Fuze and any specific hazards	1	1 / Timed Written Exam

1.2.142.2	Theory & Knowledge	Fuzes	Electronic / Multifunction / Proximity	Know trigger force	Understand which force may trigger an Electronic or Electro Mechanical Fuze in its armed state	2	1 / Visual/Oral
1.2.142.3	Theory & Knowledge	Fuzes	Electronic / Multifunction / Proximity	Arming, firing, RSP	Describe full arming cycle and firing actions of Electronic or Electro Mechanical Fuze and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.143.1	Theory & Knowledge	Fuzes	Base Detonating	Know trigger force	Understand which force may trigger a Base Detonating Impact fuze in its armed state	1	1 / Visual/Oral
1.2.143.2	Theory & Knowledge	Fuzes	Base Detonating	Arming forces and hazards	Understand the likely arming forces for Base Detonating Fuzes and any specific hazards	2	1 / Timed Written Exam
1.2.143.3	Theory & Knowledge	Fuzes	Base Detonating	Arming, firing, RSP	Describe full arming cycle and firing actions of Base Detonating Fuzes and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.144.1	Theory & Knowledge	Fuzes	Air Dropped Fuzes	Know trigger force	Understand which force may trigger the range of Air Dropped Fuzes found on an ADW in its armed state	1	1 / Visual/Oral
1.2.144.2	Theory & Knowledge	Fuzes	Air Dropped Fuzes	Arming forces and hazards	Understand the likely arming forces for Air Dropped Fuzes and any specific hazards	2	1 / Timed Written Exam

1.2.144.3	Theory & Knowledge	Fuzes	Air Dropped Fuzes	Arming, firing, RSP	Describe full arming cycle and firing actions for common fuzes found on ADW and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.145.1	Theory & Knowledge	Fuzes	Shaped charge initiators	Arming forces and hazards	Understand the likely arming forces for fuzes associated with shaped charges and any specific hazards	1	1 / Timed Written Exam
1.2.145.2	Theory & Knowledge	Fuzes	Shaped charge initiators	Know trigger force	Understand which force may trigger a Spit Back fuze in its armed state	2	1 / Visual/Oral
1.2.145.3	Theory & Knowledge	Fuzes	Shaped charge initiators	Arming, firing, RSP	Describe full arming cycle and firing actions for piezo, spit back and other shaped charge initiating mechanisms and apply this knowledge during RSP selection. Note that dangerous elements of the fuze are not just found in one location such as the piezo position.	3	1 / Timed Written Exam
1.2.146.1	Theory & Knowledge	Fuzes	All Ways Acting / Graze	Know trigger force	Understand which force may trigger an Always Acting Fuze in its armed state	1	1 / Visual/Oral
1.2.146.2	Theory & Knowledge	Fuzes	All Ways Acting / Graze	Arming forces and hazards	Understand the likely arming forces for an Always Acting Fuze and any specific hazards	2	1 / Timed Written Exam

1.2.146.3	Theory & Knowledge	Fuzes	All Ways Acting / Graze	Arming, firing, RSP	Describe full arming cycle and firing actions for common Always Acting Fuzes and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.147.1	Theory & Knowledge	Fuzes	Cocked striker / Booby Trap / Grenade Fuzes	Know trigger force	Understand which force may trigger cocked striker fuze in its armed state. Understand the extreme caution required with cocked strikers	1	1 / Visual/Oral
1.2.147.2	Theory & Knowledge	Fuzes	Cocked striker / Booby Trap / Grenade Fuzes	Arming forces and hazards	Understand the likely arming forces for a cocked striker fuze and any specific hazards	2	1 / Timed Written Exam
1.2.147.3	Theory & Knowledge	Fuzes	Cocked striker / Booby Trap / Grenade Fuzes	Arming, firing, RSP	Describe full arming cycle and firing actions of cocked strikers and apply this knowledge during RSP selection	3	1 / Timed Written Exam
1.2.17.1	Theory & Knowledge	Fuzes	Fuze forces	Fuze forces and arming	Understand fuze forces and different methods arming: set back, creep, centrifugal, all ways acting	1	2 / Visual/Oral
1.2.191.3	Theory & Knowledge	Fuzes	Fuzes – Holding Devices	Holding devices	Know and understand the key holding devices found within a fuze. E.g. Creep spring, belleville spring, support cup, shearwire, detent, centrifugal ball bearings, locking balls,	3	3 / Timed Written Exam

					safety pins, pantographs, setback sleeves, pyro detents, use of fuzes parts as detents, e.g. firing pin in slider.		
1.2.192.3	Theory & Knowledge	Fuzes	Fuzes – Masking Devices	Masking devices	Know and understand the key masking devices found within a fuze. E.g. Shutters and delay setting bolts	3	3 / Timed Written Exam
1.2.193.3	Theory & Knowledge	Fuzes	Fuzes – Safe to Arm	SAU	Understand the basic role of a SAU within a complex fuzing system such as that found in guided weapon	3	1 / Timed Written Exam
1.2.194.3	Theory & Knowledge	Fuzes	Fuzes – Terminology	Categorisation and Terminology	Understand differences in terminology/ways of categorising fuzes, fuzing systems, SAUs and Initiation Mechanisms etc. e.g. percussion, point detonating and impact fuze.	3	1 / Timed Written Exam
1.317.941.1	Theory & Knowledge	Ammunition Design	Explosive train	Basic understanding	Understand the basic component parts of an item of EO. Fuze, booster, and main charge.	1	1 / Timed Written Exam
1.317.941.2	Theory & Knowledge	Ammunition Design	Explosive train	Detailed understanding	Understand explosive train of an item of EO including general types of explosive likely to be found at each stage	2	2 / Timed Written Exam

1.317.942.3	Theory & Knowledge	Ammunition Design	Fragmentation	Understand	Understand role of fragmentation in EO design as means of achieving lethality over an area. Know examples of fragmenting EO such as grenades, aerial bombs, mortar rounds, projectiles, rockets etc. Understand what energetics are best suited to shattering and projecting fragmentation	3	2 / Timed Written Exam
1.317.943.3	Theory & Knowledge	Ammunition Design	Shaped Charges	Understand	Understand requirements of shaped charges in weapons design, difference between jet and slug, and suitability of differing energetics for the role, difference in liner material etc.	3	2 / Timed Written Exam
1.317.944.3	Theory & Knowledge	Ammunition Design	Blast munitions	Understand	Understand role and function of blast munitions - difference in effective range from fragmentation munitions.	3	1 / Timed Written Exam
1.318.945.1	Theory & Knowledge	EO Categorisation	Sub categories and models	Identify	Be able to identify different ordnance categories and sub-categories (Rocket, Mortar, Grenade, Projectile, Aircraft bomb, Missile etc.) as per various forms of categorisation. E.g. NATO, CORD, Treaties, IMAS etc.	1	2 / Timed Written Exam

1.318.945.2	Theory & Knowledge	EO Categorisation	Sub categories and models	Identify	Be able to identify relevant models as well as categories and sub categories of common ordnance found in area of operations	2	2 / Timed Written Exam
1.318.946.1	Theory & Knowledge	EO Categorisation	Role	Understand	Be able to disaggregate EO sub categories by role. E.g. Mortars: Illum, Smoke, HE etc.	1	2 / Timed Written Exam
1.318.947.3	Theory & Knowledge	EO Categorisation	Weapon Systems	Link	Be able to link different calibre EO to different weapons systems. E.g. 125mm tank projectile to 125mm smoothbore found on T-64, T-72, T-80, T-90 etc.	3	1 / Timed Written Exam
1.4.41.3	Theory & Knowledge	Detection theory	Electromagnetic induction	Aware	Aware of pulse induction (time domain), eddy currents, loop sizes, types of metals and responses for detectors used in support of EOD operations. Understand basic differences with continuous wave (typically frequency domain)	3	1 / Timed Written Exam
1.4.42.3	Theory & Knowledge	Detection theory	Magnetic field theory	Aware	Aware of B field, types and configurations of gradiometers. Understand limitations of magnetometers (i.e. detection of	3	1 / Timed Written Exam

					ferrous metals only) in support of EOD operations.		
1.4.43.2	Theory & Knowledge	Detection theory	Mineralisation	Calibration	Understand ground compensation for detectors in specific soil area. E.g. laterite soil.	2	2 / Focused skill test
1.4.43.3	Theory & Knowledge	Detection theory	Mineralisation	Plan detector use	Select types of detector suitable to prevailing soil conditions. E.g. Selection of detector with good ground balance capability when working in laterite soils.	3	2 / Timed Written Exam
1.47.38.2	Theory & Knowledge	Low order techniques	Deflagration techniques	Understand	Assist in preparing explosive stores for deflagration techniques such as use of skylight or magnesium shaped charge should task context require.	2	2 / Focused skill test
1.47.38.3	Theory & Knowledge	Low order techniques	Deflagration techniques	Employ	Understand range of deflagration techniques and tools. Select deflagration technique where appropriate, execute with full high order precautions	3	2 / Assessed live task
1.47.39.1	Theory & Knowledge	Low order techniques	Fuze removal techniques	Awareness	Aware of fuze removal techniques	1	1 / Visual/Oral

1.47.39.2	Theory & Knowledge	Low order techniques	Fuze removal techniques	Understand	Assist in preparing EOD weapons for fuze removal techniques such as cracker-barrel or de-armer should task context require.	2	2 / Focused skill test
1.47.39.3	Theory & Knowledge	Low order techniques	Fuze removal techniques	Employ	Select fuze removal techniques where appropriate / advantageous and execute with full high order precautions. E.g. dearmers/cracker barrel	3	4 / Assessed live task
1.47.40.1	Theory & Knowledge	Low order techniques	Pyrotechnic techniques	Awareness	Aware of range of deflagration/pyrotechnic techniques. E.g. Pyro torches/skylights/destructor incendiary/other uses of thermite	1	2 / Assessed live task
1.47.40.2	Theory & Knowledge	Low order techniques	Pyrotechnic techniques	Understand	Assist in preparing non-explosive stores for pyrotechnic techniques should task context require.	2	2 / Assessed live task
1.47.40.3	Theory & Knowledge	Low order techniques	Pyrotechnic techniques	Employ	Understand use of Pyro torch will be context specific. Supervise placement of pyro torch/destructor incendiary and activation with full high order precautions or as per SOP	3	2 / Assessed live task

1.47.800.3	Theory & Knowledge	Low order techniques	Thermite	Aware	Aware of range of thermite options (T-Jet etc.) for use against a range of EO including their Hazard Class (typically 4.1)	3	1 / Timed Written Exam
1.48.182.3	Theory & Knowledge	Demolition theory & methods	Commercial Explosives	Employ commercial explosives	Understand how to use commercial explosives (including binary mixes, emulsions) effectively as part of demolition procedures, understand limitations, e.g. better to use first order (fuze well) rather than second order (donor charge attempting to shatter casing).	3	4 / Visual/Oral
1.48.203.3	Theory & Knowledge	Demolition theory & methods	SAA and APHE risks	Understanding	Understand risk of including SAA and APHE within a bulk demolition and the potential for kick out and subsequent BAC	3	1 / Timed Written Exam
1.48.204.3	Theory & Knowledge	Demolition theory & methods	WP risk	Understanding	Understand implications of including different types of WP in a bulk demolition. (i.e. risk involved in including felt based WP).	3	1 / Timed Written Exam
1.48.46.1	Theory & Knowledge	Demolition theory & methods	Donor charges	Awareness	Aware of donor charge techniques to high order EO by means of sympathetic detonation	1	1 / Visual/Oral

1.48.46.2	Theory & Knowledge	Demolition theory & methods	Donor charges	Understanding	Understand how donor charges work and appreciate placement on different categories of EO	2	1 / Timed Written Exam
1.48.46.3	Theory & Knowledge	Demolition theory & methods	Donor charges	Employment	Select donor charge type and amount and place correctly on all EO encountered	3	2 / Timed Written Exam
1.48.47.1	Theory & Knowledge	Demolition theory & methods	Explosion propagation	Awareness	Aware that explosion propagation effects/sympathetic detonation considerations should determine the best stack design when acting as team members during logistic dems tasks	1	1 / Visual/Oral
1.48.47.2	Theory & Knowledge	Demolition theory & methods	Explosion propagation	Understanding	Understand the importance of following the Level 3s plan for a up to 50kg NEQ dem and supervise accordingly	2	1 / Timed Written Exam
1.48.47.3	Theory & Knowledge	Demolition theory & methods	Explosion propagation	Select optimum layout	Select appropriate demolition standard layout given the constraints of EO to destroy, and serviceable ammunition to use, up to a limit of 50kg NEQ	3	2 / Timed Written Exam
1.49.13.1	Theory & Knowledge	Explosive theory	High & Low Explosives	Know the difference between	Know the difference between High & Low explosives and the different effects that can be used in EOD for each type.	1	1 / Visual/Oral

				High & Low explosive			
1.49.13.2	Theory & Knowledge	Explosive theory	High & Low Explosives	Understand and explain	Be able to utilise High Explosive and Low Explosive for use in EOD Operations when required.	2	2 / Timed Written Exam
1.49.14.1	Theory & Knowledge	Explosive theory	Explosive trains	Know the Explosive Train	Know and explain the stages/parts of an explosive train and how this effects EOD techniques	1	1 / Visual/Oral
1.49.14.2	Theory & Knowledge	Explosive theory	Explosive trains	Understand the explosive train	Be able to understand and explain the component parts of an explosive train and its use in EOD and how it is used in demolitions	2	2 / Timed Written Exam
1.49.185.3	Theory & Knowledge	Explosive theory	Propellant	Understand stabiliser	Understand importance of stabiliser component of common double based propellant	3	1 / Timed Written Exam
1.49.189.3	Theory & Knowledge	Explosive theory	Improvised Explosives	Understand	Know the chemical makeup of common improvised explosives (ANFO, ALANFO, TATP, HMTD) and know the precursors	3	2 / Visual/Oral
1.49.190.2	Theory & Knowledge	Explosive theory	Explosive Classification	Understand and explain	Be able to understand the difference between difference between Primary and Secondary high explosives and the use of the term tertiary high explosives	2	1 / Timed Written Exam

					required a booster to initiate (e.g. ANFO).		
1.49.969.1	Theory & Knowledge	Explosive theory	Primary Explosive	Know	Know primary explosives and pure secondary explosives used in modern and historical detonators	1	1 / Timed Written Exam
1.50.1.1	Theory & Knowledge	Weapon types & categories	Mines	Identify by function and purpose	Understand and identify AP/AT mines	1	1 / Visual/Oral
1.50.1.2	Theory & Knowledge	Weapon types & categories	Mines	Produce RSP	Understand and positively identify AP/AT mines and mines found historically. Know recognised RSPs for AP/AT mines	2	3 / Timed Written Exam
1.50.1063.3	Theory & Knowledge	Weapon types & categories	Artillery and Mortars	Identify by function and purpose	Identify pre-scored/pre-engraved driving bands on certain projectiles and mortar rounds and understand these are not indications of having been fired and potentially armed. Differentiate from standard driving bands.	3	1 / Visual/Oral
1.50.11.1	Theory & Knowledge	Weapon types & categories	Submunitions	Understand the effects and uses of submunitions	Demonstrate an understanding of submunitions, how they work and delivery systems used	1	1 / Visual/Oral

1.50.11.2	Theory & Knowledge	Weapon types & categories	Submunitions	Understand the effects and uses of submunitions	When authorised in writing conduct recognised RSP on certain submunitions based on a sound understanding of its function and danger area. Be able to calculate and demonstrate the area required for evacuation	2	3 / Timed Written Exam
1.50.12.1	Theory & Knowledge	Weapon types & categories	IED and Booby Trap	Understand the uses of IEDs and their effects	Aware of IED hazards and requirement to inform supervisor in order to task IEDD capability.	1	1 / Focused skill test
1.50.12.2	Theory & Knowledge	Weapon types & categories	IED and Booby Trap	Understand the uses of IEDs and their effects	Gain an understanding of IEDs and their types. Lessons to include likely scenarios where IEDs can be suspected	2	2 / Visual/Oral
1.50.12.3	Theory & Knowledge	Weapon types & categories	IED and Booby Trap	Understand the uses of IEDs and their effects	Understand in general terms IEDs and their types. Lessons to include likely scenarios where IEDs can be suspected. Be able to identify areas that have a high probability of IED contamination.	3	2 / Timed Written Exam
1.50.2.2	Theory & Knowledge	Weapon types & categories	Rockets	Identify by function and purpose	Understand and identify Rockets including main Free Flight Rockets	2	1 / Visual/Oral

1.50.2.3	Theory & Knowledge	Weapon types & categories	Rockets	Produce RSP	Understand and positively identify Rockets including Free Flight Rockets and similar found historically in Ops area. Be able to calculate and demonstrate the area required for evacuation	3	1 / Timed Written Exam
1.50.3.2	Theory & Knowledge	Weapon types & categories	Grenades	Identify by function and purpose	Understand and identify handheld and Propelled/Projected/Rifle Grenades	2	1 / Visual/Oral
1.50.3.3	Theory & Knowledge	Weapon types & categories	Grenades	Produce RSP	Understand and positively identify hand Held and Propelled Grenades and similar found historically in Ops area. Be able to calculate and demonstrate the area for evacuation	3	1 / Timed Written Exam
1.50.4.2	Theory & Knowledge	Weapon types & categories	Artillery	Identify by function and purpose	Understand describe and identify artillery by class and function	2	1 / Visual/Oral
1.50.4.3	Theory & Knowledge	Weapon types & categories	Artillery	Identify by function and purpose	Understand describe and Positively identify artillery by class and function. Be able to calculate and demonstrate the area required for evacuation	3	1 / Timed Written Exam

1.50.5.2	Theory & Knowledge	Weapon types & categories	Mortars	Identify by function and purpose	Understand describe and identify Mortars by class and function	2	1 / Visual/Oral
1.50.5.3	Theory & Knowledge	Weapon types & categories	Mortars	Identify by function and purpose	Understand describe and identify Mortars by class and function and conduct EOD disposal in accordance with SOPs and apparent secondary hazards	3	1 / Timed Written Exam
1.50.6.2	Theory & Knowledge	Weapon types & categories	Air Delivered	Identify by function and purpose	Understand describe and identify Air Delivered weapons by class and function and guidance systems in use.	2	1 / Visual/Oral
1.50.6.3	Theory & Knowledge	Weapon types & categories	Air Delivered	Identify by function and purpose	Understand describe and identify Air Delivered weapons by class and function and guidance systems in used. Have an understanding of historically used weapons in Ops area and be confident in producing an RSP based on a sound understanding of its function	3	3 / Timed Written Exam
1.54.10.2	Theory & Knowledge	Weapon effect theory	Shaped charges	Understand the effects and uses of shaped charges	Demonstrate an understanding of Shaped Charges and how they work. Identify weapons that utilise Shaped Charges and identify weapons capable of using them. Understand how	2	1 / Visual/Oral

					shaped charges are used in EOD		
1.54.10.3	Theory & Knowledge	Weapon effect theory	Shaped charges	Understand and demonstrate	Demonstrate an understanding of Shaped Charges and how they work. Identify weapons that utilise Shaped Charges and identify weapons capable of using them. Understand how shaped charges are used in EOD.	3	3 / Timed Written Exam
1.54.7.1	Theory & Knowledge	Weapon effect theory	Blast	Understand the effects of blast in EOD	Display an understanding of the effects of blast on property	1	1 / Visual/Oral
1.54.7.2	Theory & Knowledge	Weapon effect theory	Blast	Identify by function and purpose	Be able to calculate and demonstrate the area required for evacuation during EOD operations.	2	3 / Timed Written Exam
1.54.8.1	Theory & Knowledge	Weapon effect theory	Fragmentation	Understand the effects of fragmentation in EOD	Demonstrate an understanding of the effects of fragmentation and how it effects EOD operations. Identify Fragmentation weapons used in LSA	1	1 / Visual/Oral
1.54.8.2	Theory & Knowledge	Weapon effect theory	Fragmentation	Understand and demonstrate	Be able to calculate and demonstrate the area for	2	1 / Timed Written Exam

					evacuation when destroying fragmentation ammunition.		
1.54.9.1	Theory & Knowledge	Weapon effect theory	HESH / Spall	Understand the effects of HESH in EOD	Demonstrate an understanding of the effects of HESH/HE-P rounds and how it effects EOD operations. Identify ammunition with a fragmentation effect	1	1 / Visual/Oral
1.54.9.2	Theory & Knowledge	Weapon effect theory	HESH / Spall	Understand and demonstrate	Be able to calculate and demonstrate the area for evacuation when destroying HESH/HE-P ammunition	2	1 / Timed Written Exam
1.66.163.1	Theory & Knowledge	IMAS Knowledge	Familiarity with IMAS	Aware	Aware of IMAS set of documents and technical notes and how these influence NMAS and in turn SOPs. Aware of key IMAS pertinent to role.	1	1 / Visual/Oral
1.66.163.2	Theory & Knowledge	IMAS Knowledge	Familiarity with IMAS	Know key refs	Know key IMAS relevant to organisation / team role. E.g. IMAS 09.30. TEP 09.30	2	2 / Visual/Oral
1.66.163.3	Theory & Knowledge	IMAS Knowledge	Familiarity with IMAS	Use as guidance	General understanding of IMAS documents. Demonstrate ability to use as a reference support operational activities. E.g. Use EOD IMAS 09.30	3	4 / Timed Written Exam
1.69.179.25	Theory & Knowledge	Contamination Patterns	Cluster munition patterns	Aware	Aware of potential cluster munition strike shapes from	2	1 / Visual/Oral

					different types of cluster munition. E.g. fin stabilised submunitions vs spin stabilised submunitions		
1.69.179.2	Theory & Knowledge	Contamination Patterns	Cluster munition patterns	Recognise	Recognise signs that a cluster munition strike area is being encountered through identification of different types of indirect and direct evidence.	2	1 / Visual/Oral
1.69.179.3	Theory & Knowledge	Contamination Patterns	Cluster munition patterns	Define	Using knowledge of cluster munition type and container release, determine likely extent of strike area (e.g. doughnut pattern for spin stabilised submunitions and potential tighter pattern for fin stabilised, oval pattern on a line following the trajectory of the carrier munition.)	3	1 / Visual/Oral
1.69.180.25	Theory & Knowledge	Contamination Patterns	Minefield patterns	Understand	Understand how minefield location relate to combatant tactics.	2	1 / Timed Written Exam
1.69.180.2	Theory & Knowledge	Contamination Patterns	Minefield patterns	Aware	Aware of various standard minefield patterns used historically. E.g. Soviet, US patterns etc.	2	1 / Visual/Oral

1.69.180.3	Theory & Knowledge	Contamination Patterns	Minefield patterns	Application	Apply knowledge of minefield tactics and patterns to inform threat assessment during EOD operations	3	1 / Timed Written Exam
1.72.1076.3	Theory & Knowledge	Environmental impact of EOD	Burning SAA	Understanding	Understand pollutant risk from burning SAA and need to dispose of slag residue/mixed metal waste responsibly. Understand potential benefits of placing a burning vessel on a pad not on bare earth.	3	1 / Timed Written Exam
1.72.1077.3	Theory & Knowledge	Environmental impact of EOD	Demolition	Understanding	Understand risk of including EO containing kinetic penetrators (Depleted Uranium and Heavy Metal Tungsten Alloys) in demolitions.	3	1 / Timed Written Exam
1.72.1078.3	Theory & Knowledge	Environmental impact of EOD	Burning Propellant	Understanding	Understand pollutant risk from burning propellant on bare earth. Understand potential mitigation measures such as burn trays.	3	1 / Timed Written Exam
1.72.199.3	Theory & Knowledge	Environmental impact of EOD	Heavy Metals	Understanding	Understand toxic risk from lead, Heavy Metal Tungsten Alloys to the environment and humans.	3	1 / Timed Written Exam
1.72.200.3	Theory & Knowledge	Environmental impact of EOD	Toxicity	Understanding	Aware of toxic risk from traditional energetics (TNT, RDX, HMX) and newer IM	3	1 / Timed Written Exam

					energetics (NTO, DNAN) to the environment		
1.72.201.3	Theory & Knowledge	Environmental impact of EOD	Mitigation	Understanding	Understand practical mitigation methods to toxic risk from energetics. (e.g. soil PH testing, identification of water courses, sealing of slag residue if burying, and suitable high order demolition techniques)	3	1 / Timed Written Exam
2. Equipment Skills							
2.1.31.1	Equipment Skills	Hook & Line	Move ordnance	Understand basic principles	Understand why EOD-3 will select option of remote pulling to move EO when required. Understand methods of operation of basic booby traps / VOIEDs. Assist in preparing a pull on EO under supervision of EOD Level 2 or 3	1	1 / Visual/Oral
2.1.31.2	Equipment Skills	Hook & Line	Move ordnance	Setup & Coordinate	Under direction and supervision of EOD-3 setup and coordinate semi remote movement of various sizes of UXO using hook and line	2	1 / Focused skill test
2.1.31.3	Equipment Skills	Hook & Line	Move ordnance	Complex pulls	Plan and direct pulling of EO to achieve aim within RSP with tight control and cordon safety.	3	2 / Focused skill test

					Supervise team to perform this activity.		
2.1.32.3	Equipment Skills	Hook & Line	Mitigate booby traps	Complex pulls	Plan setup and coordinate complex pulls on objects with changes of direction (e.g. removal of item from building)	3	2 / Focused skill test
2.1.936.3	Equipment Skills	Hook & Line	Improvise Equipment	Aware	Improvise basic hook and line equipment from materials typically available anywhere.	3	1 / Focused skill test
2.36.59.1	Equipment Skills	GPS / GNSS	Record position	Record	Record position to required accuracy using suitable means. E.g. Hand held GPS	1	2 / Focused skill test
2.38.22.2	Equipment Skills	Exploder	Performance	Methods of detonation	Understand and confidently use non-electrical methods of initiation in an operational EOD environment	2	1 / Visual/Oral
2.38.52.3	Equipment Skills	Exploder	Performance	Connect and fire	Be able to connect and fire all exploders used within the organisation and be able to fault find in the event of a failure of the exploder.	2	2 / Visual/Oral
2.38.23.1	Equipment Skills	Exploder	Procedures	Understand organisations procedures and SOPs	Be able to translate into practise current procedures and SOPs under the instruction of supervisors	1	1 / Visual/Oral

2.38.52.36	Equipment Skills	Exploder	Common types	Know exploders in use with the team	Aware of range of exploders in use and their pros and cons, including remote / wireless	3	1 / Visual/Oral
2.38.52.35	Equipment Skills	Exploder	Common types	Know exploder types	Know exploder types available and their pros and cons. Employ appropriate exploder for use where appropriate whilst aware of EMR RADHAZ. Know implications on wired vs remote of RF hazards.	3	1 / Visual/Oral
2.39.53.1	Equipment Skills	De-armer	Setup and danger area	Awareness	Aware that EOD weapons have danger areas associated with kinetic as well as explosive effect	1	1 / Visual/Oral
2.39.53.2	Equipment Skills	De-armer	Setup and danger area	Assist	Assist in preparing EOD weapons for use including de-armers and disruptors	2	2 / Focused skill test
2.39.53.3	Equipment Skills	De-armer	Setup and danger area	Assess & Employ	Assess danger area template when using DE-ARMER and adjust cordon if necessary	3	1 / Assessed Timed Simulated Task
2.39.54.3	Equipment Skills	De-armer	Placement	Correct placement	When using DE-ARMER place EOD weapon correctly per RSP and without disturbing the target EO	3	2 / Assessed Timed Simulated Task

2.40.155.3	Equipment Skills	Use of detectors & locators	Key Detector Types	Main industry detectors	Aware of range of main detectors and locators in widespread use in HMA	3	1 / Visual/Oral
2.70.181.1	Equipment Skills	Communications Equipment	Two or more means	Able to communicate	Understand the requirement to be able to communicate on at least two means of communication whilst on site	1	1 / Focused skill test
2.70.181.2	Equipment Skills	Communications Equipment	Two or more means	Create comms plan	Generate comms plan for specific location based on knowledge of terrain and coverage issues. Understand need for at least two means of communication.	2	2 / Focused skill test
3. Practical EOD Skills							
3.23.85.2	Practical EOD Skills	Threat Assessment	Question technique	Basic Questioning	Conduct basic lines of questioning to gain information on target EO from witnesses	2	3 / Assessed Timed Simulated Task
3.23.85.3	Practical EOD Skills	Threat Assessment	Question technique	Questioning	Conduct suitable lines of questioning to gain information on target EO from witnesses	3	4 / Assessed Timed Simulated Task
3.23.86.1	Practical EOD Skills	Threat Assessment	Assess trends	Note	Know device categories, sub categories model designations and likely disposition in operational area. E.g. Prevalence of AP mine, PMN in a given area of operations.	1	1 / Visual/Oral

3.23.86.2	Practical EOD Skills	Threat Assessment	Assess trends	Report	Actively collate evidence gathered during EO search and locate stages to inform threat assessment. e.g. AP mine packaging positively identified	2	1 / Visual/Oral
3.23.86.3	Practical EOD Skills	Threat Assessment	Assess trends	Analyse and Infer	Analyse reported information using relevant databases and infer trends concerning known EO types found in theatre, along with accident data, review threat assessment accordingly	3	2 / Visual/Oral
3.24.15.1	Practical EOD Skills	Protective works & remediation	Reducing blast effects	Understand and demonstrate	Plan a demolition in situ of a single item of mine and specific ERW on which the individual has been trained, in a controlled environment, taking in to account the effects of blast and fragmentation and supervise a team accordingly. EO models on which EOD-1s have been trained shall be recorded on training records. Be able to work within a team to reduce the effects of blast by using tamping techniques.	1	8 / Assessed live task
3.24.15.2	Practical EOD Skills	Protective works & remediation	Reducing blast effects	Understand Blast effects	Be able to work within a team to reduce the effects of blast by using tamping techniques. Be able to produce a plan for the	2	2 / Timed Written Exam

					reduction in blast effects around property and be confident to implement it		
3.24.15.3	Practical EOD Skills	Protective works & remediation	Reducing blast effects	Mitigate Blast Effects	Plan a demolition taking in to account the effects of blast and supervise a team accordingly	3	2 / Assessed live task
3.24.27.1	Practical EOD Skills	Protective works & remediation	Sandbags	Use of Sandbags	Be able to demonstrate the use and placement of sandbags or equivalent (e.g. HESCO) in EOD ops to mitigate fragmentation. Understand the concept of tamping demolitions using sandbags.	1	1 / Visual/Oral
3.24.28.1	Practical EOD Skills	Protective works & remediation	Trenching & Tamping	Principles used for Trenching and Tamping	Aware of the need for trenching and tamping when dealing with UXO in confined areas for damage limitation	1	1 / Visual/Oral
3.24.29.1	Practical EOD Skills	Protective works & remediation	Water mitigation	Aware	Aware of the use of water mitigation. For information only unless company has the correct equipment	1	1 / Not Tested
3.25.26.1	Practical EOD Skills	Secondary hazards	Assessment	Assess site dangers	Be aware of and identify possible secondary hazards before and during operations	1	1 / Visual/Oral
3.26.1000.1	Practical EOD Skills	Demolition procedures	Kinetic	Identify	Identify APHE and kinetic penetrator ammunition and	1	1 / Focused skill test

					understand demolition implications/limitations		
3.26.1001.2	Practical EOD Skills	Demolition procedures	Shaped charges	Identify	Identify ammunition with shaped charges and if destroying by demolition understand extra precautions required	1	1 / Focused skill test
3.26.1002.2	Practical EOD Skills	Demolition procedures	Open Burning Fire Hazard	Risk assess	Risk assess fire hazard associated with open burning open demolition operations, especially in dry environment	2	1 / Focused skill test
3.26.1003.3	Practical EOD Skills	Demolition procedures	Tamping	Risk assess	Understand the risks inherent in tamping logistic demolitions using loose earth. i.e. burying demolitions	3	1 / Visual/Oral
3.26.1067.3	Practical EOD Skills	Demolition procedures	Burning of HE	Assist	Understand that burning fuzes does not necessarily remove all energetic components (e.g. primers on rotors, stemming) and that items should still be treated with caution post burn	3	1 / Focused skill test
3.26.1080.3	Practical EOD Skills	Demolition procedures	Implement	Implement	Understand how to setup a range of low order techniques, including use of shaped charges, cracker barrel, linear cutting charges etc	3	1 / Focused skill test

3.26.1081.3	Practical EOD Skills	Demolition procedures	Safety	Enforce	Understand that cordon distances must assume a high order, even if low order techniques are being used.	3	1 / Focused skill test
3.26.186.1	Practical EOD Skills	Demolition procedures	Propellant Burns	Assist	Assist in setup of propellant burn as part of disposal by open burning	1	1 / Visual/Oral
3.26.186.2	Practical EOD Skills	Demolition procedures	Propellant Burns	Setup	Coordinate setup of propellant burn as delegated by Level 3 or 3+	2	4 / Visual/Oral
3.26.186.3	Practical EOD Skills	Demolition procedures	Propellant Burns	Employ	Employ open burning to dispose of large quantities of propellant, either bagged or solid grain whilst aware of prevailing wind and weather conditions. Aware of potential environmental and safety hazards from ammonium perchlorate based rocket propellant producing hydrogen chloride in turn creating hydrochloric acid	3	4 / Focused skill test
3.26.187.3	Practical EOD Skills	Demolition procedures	Burning of Fuzes	Run process	Setup equipment (burn tank, burn barrel etc.) and run the burn process for small fuzes	3	1 / Focused skill test
3.26.188.1	Practical EOD Skills	Demolition procedures	Burning of HE	Assist	Assist in setup of burn process for SAA and/or fuzes (burn tank,	1	1 / Focused skill test

					burn barrel etc.) under supervision		
3.26.188.2	Practical EOD Skills	Demolition procedures	Burning of HE	Setup	Setup burn process (burn tank, burn barrel etc.) , including preparation of items, as delegated by Level 3 or 3+	2	2 / Focused skill test
3.26.188.3	Practical EOD Skills	Demolition procedures	Burning of HE	Run process	Run a safe HE burn process, ensuring safety at all stages. Understand potential environmental implications of large scale burning of TNT and RDX based munitions. Understand means of containing contamination, e.g. burn small non fragmenting items in enclosed burner.	3	4 / Focused skill test
3.26.34.1	Practical EOD Skills	Demolition procedures	Initiation	Understand difference	Understand difference between electric and igniferous means of initiation and implications for safe employment during demolitions. i.e. Potential for EM interference vs less time control with non-electric	1	1 / Visual/Oral
3.26.34.2	Practical EOD Skills	Demolition procedures	Initiation	Prepare initiation train	Prepare electric or igniferous initiation trains for use in dems sites or during RSP, delegated	2	2 / Focused skill test

					by Level 3 or 3+. Adhere to safety rules		
3.26.34.3	Practical EOD Skills	Demolition procedures	Initiation	Use appropriate technique	Select and use appropriate initiation option based on RF hazard, dems requirement or RSP, supervise preparation and maintain initiation control at all times	3	2 / Assessed live task
3.26.396.2	Practical EOD Skills	Demolition procedures	Burning of SAA	Assist	Assist in conducting a burn process for SAA with simultaneous parallel burn tanks as delegated by EOD-3	2	4 / Focused skill test
3.26.396.3	Practical EOD Skills	Demolition procedures	Burning of SAA	Plan and conduct	Plan and conduct SAA burn, including post burn waste removal, in accordance with standard operating procedures	3	4 / Timed Written Exam
3.26.48.1.1	Practical EOD Skills	Demolition procedures	Electrical initiation	Conduct	Able to check, test and lay firing cable	1	2 / Focused skill test
3.26.48.1.2	Practical EOD Skills	Demolition procedures	Electrical initiation	Employ	Use electrical initiation in demolition and demonstrate appropriate command and control of site in a controlled environment. E.g. Minefield Clearance Site. Central Demolition Site.	1	8 / Assessed live task

3.26.48.1.3	Practical EOD Skills	Demolition procedures	Electrical initiation	Safety & Limitations	Conduct electrical initiation techniques and aware of limitations of such techniques. E.g. subject to electromagnetic interference from transmitters etc.	1	1 / Visual/Oral
3.26.48.2	Practical EOD Skills	Demolition procedures	Electrical initiation	Series and Parallel Circuits	Understand different circuit configurations for multi item and logistic demolitions. Understand the advantages and disadvantages of series and parallel circuits	2	1 / Assessed live task
3.26.49.1	Practical EOD Skills	Demolition procedures	Non-electrical initiation	Procedures	Use non-electrical initiation (safety fuze) in demolition and demonstrate appropriate command and control of site in a controlled environment. E.g. Minefield Clearance Site. Central Demolition Site.	1	4 / Assessed live task
3.26.49.1.1	Practical EOD Skills	Demolition procedures	Non-electrical initiation	Igniferous and Shocktube initiation procedures	Conduct igniferous and shocktube initiation techniques and aware of the limitations of such techniques	1	1 / Visual/Oral
3.26.49.2	Practical EOD Skills	Demolition procedures	Non-electrical initiation	Safety Fuze	Able to prepare safety fuze and test - aware of potential for hygroscopic ingress and possible effect of this, able to	2	2 / Focused skill test

					prepare shocktube as an alternative		
3.26.49.3	Practical EOD Skills	Demolition procedures	Non-electrical initiation	Employ	Be able to safely use safety fuze or shocktube in demolition and demonstrate appropriate command and control of site. Understand lack of control inherent with using safety fuze and site security requirements required as a result	3	2 / Assessed live task
3.26.897.3	Practical EOD Skills	Demolition procedures	Propellant Burn Site	Select	Select burn site using an appropriate set of criteria, e.g. vegetation, fire fighting resources etc.	3	2 / Focused skill test
3.26.898.3	Practical EOD Skills	Demolition procedures	Propellant Burn Weather	Monitor	Monitor and assess weather (e.g. wind direction) for suitability for propellant burns, keep under constant review	3	1 / Focused skill test
3.26.899.3	Practical EOD Skills	Demolition procedures	Propellant Burn Types	Evaluate Hazards	Evaluate propellant types against criteria to determine suitability for burning. Know hazards associated with some propellants, e.g. high energy tank rounds, rocket grains going propulsive, HCI risk immediately after burning perchlorate based propellants etc.	3	2 / Focused skill test

3.26.900.3	Practical EOD Skills	Demolition procedures	Propellant Burn Remediation	Remediate	Carry out post burn site remediation and apply a safe waiting time before the next burn	3	1 / Focused skill test
3.26.901.3	Practical EOD Skills	Demolition procedures	HE Burn Suitability	Determine	Determine what munitions / HE explosive types are suitable for burning. i.e. precautions for items with integral propellant charges	3	2 / Focused skill test
3.26.902.3	Practical EOD Skills	Demolition procedures	HE Burn Preparation	Prepare	Prepare HE for burning, if stacking know the maximum depth for loose / flake explosives during logistic burn	3	1 / Focused skill test
3.26.903.3	Practical EOD Skills	Demolition procedures	HE Burn Safety Distances	Know	Know safety distances appropriate for burning of HE	3	1 / Focused skill test
3.26.937.2	Practical EOD Skills	Demolition procedures	Ringmains and mainlines	Conduct	Set up ring mains and mainlines for demolition for multiple items spread over an area	2	2 / Focused skill test
3.26.967.1	Practical EOD Skills	Demolition procedures	Task Scene Management	Controlled environment	Conduct task scene management in a controlled environment such as a clearance task for demolition single items of EO on which recorded trained as authorised by an EOD-3 or above	1	4 / Assessed live task

3.26.967.2	Practical EOD Skills	Demolition procedures	Task Scene Management	All authorised environments	Conduct task scene management in any environment for demolition multiple items of EO on which recorded in writing as trained	2	2 / Assessed live task
3.26.968.2	Practical EOD Skills	Demolition procedures	Demolition plan	Conduct	Design basic demolition plan for multi item demolition using ring main or main line to destroy items in situ	2	2 / Assessed live task
3.26.995.3	Practical EOD Skills	Demolition procedures	Task Scene Management	All authorised environments	Conduct task scene management for demolition up to 50kg NEQ in all authorised environments, including NOTAM and other CDS specific requirements	3	4 / Assessed live task
3.26.996.1	Practical EOD Skills	Demolition procedures	Explosive Accounting	Account	Account strictly for explosive stores and maintain correct records of explosive used and explosive remaining	1	1 / Focused skill test
3.26.997.1	Practical EOD Skills	Demolition procedures	Explosive Stores	Know	Know various explosive stores including main charges (e.g.TNT, RDX or PETN based plastic explosives, pentolite based commercial explosives), detonation cord, safety fuze	1	1 / Focused skill test

3.26.998.1	Practical EOD Skills	Demolition procedures	Explosive Safety	Know	Know relevant HCC and mixing rules for standard explosive stores used for demolitions	1	1 / Focused skill test
3.26.999.1	Practical EOD Skills	Demolition procedures	WP and Illum	Identify	Identify WP/HC and ILLUM ammunition and distinguish from HE fills	1	1 / Focused skill test
3.28.25.3	Practical EOD Skills	Safe access	Shafting & Shoring	Understand basic principles	Aware of gas risk and other hazards of confined spaces. Understand the implementation and use of basic shafting and shoring principles used in EOD in support of 3+ task for deep buried items.	3	1 / Visual/Oral
3.29.30.1	Practical EOD Skills	Recognition	Identify & Assess	Correct ID of EO	Be able to identify EO in theatre by ordnance sub-category and for key items by model name	1	8 /Visual/Oral
3.29.30.2	Practical EOD Skills	Recognition	Identify & Assess	Correct ID of EO	Be able to fully demonstrate and correctly identify EO in theatre both by sub-category and for key EO by model; also identify by other means of classification such as function, size and associated hazards	2	8 /Visual/Oral
3.29.30.3	Practical EOD Skills	Recognition	Identify & Assess	Record contamination	Understand the need to record contamination locations in order to map patterns for future survey and clearance. Record location	3	1 / Timed Written Exam

					of items found in a suitable form for inclusion in the central database that enables mapping of contamination.		
3.30.319.1	Practical EOD Skills	Assess whether EO is safe to move	Can EO be moved?	Aware	Aware that circumstances exist where EO may be moved by EOD 3+, 3 or authorised to EOD 2 on the basis of an understanding of the fuzing system, arming state and an assessment of the risk	1	1 / Focused skill test
3.30.319.2	Practical EOD Skills	Assess whether EO is safe to move	Can EO be moved?	Understand	Understand that clear knowledge of fuzing is required to assess risk of moving EO. Able to make EO move decisions on items on which they have been trained and recorded in writing as authorised by an EOD-3 or above	2	1 / Focused skill test
3.30.319.3	Practical EOD Skills	Assess whether EO is safe to move	Can EO be moved?	Conduct	Have a clear knowledge of the holding and masking devices within a fuze that would enable a reasonable UXO or Mine move decision to be made. Understand movement of UXO is an exceptional action, not routine, that must be justified. Understand that they must be able to articulate clearly why it is	3	1 / Focused skill test

					acceptable to move an item of UXO based on understanding of fuze functioning. Authorise movement by EOD-2 if certain risk is acceptable, if determined that EOD-2 has shown competency, and in accordance with SOPs		
3.30.35.2	Practical EOD Skills	Assess whether EO is safe to move	Has been fired?	Develop awareness	Understand the safety difference between ordnance that has been fired and that which hasn't. Know common indicators, e.g. scored driving band of projectile	2	2 / Visual/Oral
3.30.35.2.1	Practical EOD Skills	Assess whether EO is safe to move	Has been fired?	Diagnose all UXO in area	Correctly ascertain whether ordnance has been fired or not	2	4 / Visual/Oral
3.30.35.3	Practical EOD Skills	Assess whether EO is safe to move	Has been fired?	Diagnose all UXO	Be able to correctly identify the state of arming of all types of ordnance based on local knowledge or generic knowledge of class of items	3	4 / Visual/Oral
3.30.36.2	Practical EOD Skills	Assess whether EO is safe to move	Has possible hazards	Understand	Understand the implications of hazards to EOD operations posed by ordnance, additional hazards and assist in planning for these	2	2 / Visual/Oral

3.30.36.2.1	Practical EOD Skills	Assess whether EO is safe to move	Has possible hazards	Awareness	Aware that certain types of ordnance have additional hazards associated with them and know all appropriate items in local area, e.g. PG-7 piezo fuze	2	2 / Visual/Oral
3.30.36.3	Practical EOD Skills	Assess whether EO is safe to move	Has possible hazards	Mitigate	Application of knowledge of additional hazards in RSP formulation and execution. E.g. persistent WP, DU risk, fire hazard from Illum etc.	3	2 / Visual/Oral
3.315.1075.3	Practical EOD Skills	EOD Task Procedures	Over 50kg	Conduct	Conduct high order of aircraft bombs above 50 kg NEQ if authorised in writing by mine action organisation	3	1 / Focused skill test
3.315.938.1	Practical EOD Skills	EOD Task Procedures	Conduct EOR	Take part	Be able to take part in EOR task as part of EOD team under supervision of team leader	1	1 / Visual/Oral
3.315.938.2	Practical EOD Skills	EOD Task Procedures	Conduct EOR	Conduct	Conduct EOR as authorised by EOD-3 in order to identify or confirm EO threat.	2	1 / Assessed live task
3.315.938.3	Practical EOD Skills	EOD Task Procedures	Conduct EOR	Plan and lead	Plan and lead EOR in order to safely identify or confirm EO threat. Judge whether threat entails team or individual EOR	3	1 / Assessed live task

					task. Supervise team in conduct of EOR if appropriate		
3.315.939.1	Practical EOD Skills	EOD Task Procedures	EOR Evidence	Aware	Aware of evidence associated with EO in area of operations. e.g. trench near AP minefield where this might be an indicator of a mined area	1	1 / Visual/Oral
3.315.939.2	Practical EOD Skills	EOD Task Procedures	EOR Evidence	Know evidence	Know in general the range of associated evidence for a given threat in area of operations. E.g. Submunition fragmentation indicating a possible cluster strike	2	1 / Visual/Oral
3.315.939.3	Practical EOD Skills	EOD Task Procedures	EOR Evidence	Know and develop	Know in detail the range of associated evidence for a given threat in area of operations. Be able to generate and update evidence guides alongside EO guides to assist in EOR and general threat assessment/risk management	3	1 / Visual/Oral
3.315.983.1	Practical EOD Skills	EOD Task Procedures	Task Conduct	Aware	Aware of the stages of an EOD task	1	1 / Assessed live task
3.315.983.2	Practical EOD Skills	EOD Task Procedures	Task Conduct	Know	Know the stages of an EOD task and what needs to happen in each one	2	1 / Assessed live task

3.315.983.3	Practical EOD Skills	EOD Task Procedures	Task Conduct	Manage	Manage the EOD task showing effective command and control of assets and rigorous approach to public and team safety	3	1 / Assessed live task
3.316.940.1	Practical EOD Skills	Image Capture	Imagery	Capture	Under direction of Level 2 or 3 be able to take basic images of EO	1	1 / Visual/Oral
3.316.940.2	Practical EOD Skills	Image Capture	Imagery	Close ups	Be able to take images of specific parts of EO and associated evidence. E.g. Trip wire spool associated with AP mine	2	1 / Visual/Oral
3.316.940.3	Practical EOD Skills	Image Capture	Imagery	Build guides	Be able to develop local EO ordnance guide from images taken in the field. Gather images of EO in all known states (i.e. weathering etc.).	3	1 / Visual/Oral
3.63.167.3	Practical EOD Skills	Clearance of Human Remains IMAS TBC TN 10.10	Cultural issues	Aware	Aware of need to adapt approach to maintain cultural sensitivity concerning deceased where safe to do so and which organisations deal with the deceased	3	1 / Visual/Oral
3.63.168.3	Practical EOD Skills	Clearance of Human Remains	Forensic issues	Aware	Aware of need, if required by local authorities, to maximise forensic information, understand	3	1 / Visual/Oral

		IMAS TBC TN 10.10			medico-legal framework in place in country.		
3.63.169.3	Practical EOD Skills	Clearance of Human Remains IMAS TBC TN 10.10	Technical EOD issues	Aware	Aware of means of rendering human remains safe using appropriate methods such as hook and line, detectors, x-ray, maximising forensic value where at all possible	3	1 / Focused skill test
3.63.177.3	Practical EOD Skills	Clearance of Human Remains IMAS TBC TN 10.10	PPE	Aware	Aware of appropriate PPE for handling human remains depending on context (splash suits, face masks or even breathing apparatus in enclosed spaces)	3	1 / Focused skill test
3.71.183.3	Practical EOD Skills	Mine Detection Dogs	MDD Operations	Understand capability	Understand how to integrate EDD/MDD assets, in conjunction with handler, to support EOD task, specifically safe location of EO.	3	4 / Focused skill test
4. Management & Leadership							
4.14.82.1	Management & Leadership	Operational context & awareness	Other agencies	Liaise on ground	Liaise with other national and international agencies on the ground	1	1 / Visual/Oral
4.14.82.3	Management & Leadership	Operational context & awareness	Other agencies	Encourage joint action	Demonstrate joint interaction and closer integration with other	3	1 / Visual/Oral

					agencies during course of EOD task as per local context		
4.14.83.1	Management & Leadership	Operational context & awareness	National Authority	Aware	Aware of national technical authority and NMAS	1	1 / Timed Written Exam
4.14.83.2	Management & Leadership	Operational context & awareness	National Authority	Know org limits	Know the link between approved organisation SOPs and NMAS set by the national authority	1	1 / Timed Written Exam
4.14.83.3	Management & Leadership	Operational context & awareness	National Authority	Liaise	Liaise with national authority as required on behalf of organisation regarding NMAS content and requirements	3	1 / Timed Written Exam
4.15.102.1	Management & Leadership	Logistic & Supply	Stock control	Understand	Understand the need to record stock levels for all stores during daily checks and report as per SOP	1	1 / Visual/Oral
4.17.95.3	Management & Leadership	Human factors	Decision making styles	Know and select	Know various leadership styles and select one appropriate to the background and task context	3	2 / Assessed live task
4.17.96.2	Management & Leadership	Human factors	Effect of fatigue	Manage team	Recognise and manage fatigue in team to reduce risk of human error	2	1 / Visual/Oral
4.17.96.3	Management & Leadership	Human factors	Effect of fatigue	Monitor	Monitor team and self (especially during RSP execution) for fatigue	3	1 / Visual/Oral

4.17.97.2	Management & Leadership	Human factors	Accident theory	Intervene	Aware of accident theory: swiss-cheese model and compounding errors, fatigue and biases. Recognise when to pause EOD task, and re-plan especially if risk assessment changes. E.g. civilians in danger zone.	2	1 / Visual/Oral
4.17.97.3	Management & Leadership	Human factors	Accident theory	Plan / Review	Carry out after-action reviews of EOD task or operations and through bow-tie analysis or similar derive lessons for adoption	3	1 / Visual/Oral
4.18.1061.3	Management & Leadership	Management and Operation of CDS	Above limits	Conduct	If specific written authorisation is provided by the mine action organisation, conduct demolitions above 50 kg NEQ. Authorisation shall include timeframe limit, NEQ limit, categories and sub categories of EO to be destroyed, and the permitted environments (controlled/not controlled) where such actions can take place.	3	1 / Focused skill test
4.18.1062.2	Management & Leadership	Management and Operation of CDS	WP	Conduct	Conduct demolition of single items of non-persistent WP ammunition as part of multi item demolition while understanding risks inherent with WP disposal.	2	1 / Focused skill test

4.18.33.1	Management & Leadership	Management and Operation of CDS	Dems site procedures	Aware and adhere	Know that Dems Site procedures exist, and obey them	1	1 / Visual/Oral
4.18.33.3	Management & Leadership	Management and Operation of CDS	Dems site procedures	Write & Supervise	Amend appropriate range (standing) orders. Supervise all dems activity and be responsible for safety on site.	3	2 / Assessed live task
4.18.50.1	Management & Leadership	Management and Operation of CDS	Layout of site	Know layout	Know layout of dems site and the purpose of each location	1	1 / Visual/Oral
4.18.50.3	Management & Leadership	Management and Operation of CDS	Layout of site	Dems Safety Officer	Write / adapt Demolition Plan, develop appropriate site laydown, supervise all activity and maintain control of all operations	3	1 / Timed Written Exam
4.18.50.4	Management & Leadership	Management and Operation of CDS	Layout of site	Set up	Set up and supervise normal operation of dem site, including EO and ammunition inload, medic location etc.	3	1 / Visual/Oral
4.18.51.1	Management & Leadership	Management and Operation of CDS	Sentries and access	Support sentries	Supervise, communicate with and support all sentries to ensure they remain alert and effective during demolitions	1	1 / Visual/Oral
4.18.51.2	Management & Leadership	Management and Operation of CDS	Sentries and access	Command and control	As demolition safety officer in a controlled environment such as a minefield, communicate progress to sentries and	1	1 / Assessed live task

					maintain readiness to respond to information from them		
4.18.51.3	Management & Leadership	Management and Operation of CDS	Sentries and access	Sentry	Know duties of a demolition sentry as detailed by SOPs, including communications plan	1	4 / Visual/Oral
4.18.992.3	Management & Leadership	Management and Operation of CDS	Dems site procedures	Setup and coordinate	Set up standard demolitions site according to SOPs and coordinate logistic elements. Individual explosive demolitions are limited to 50kg NEQ	3	2 / Focused skill test
4.18.993.1	Management & Leadership	Management and Operation of CDS	Dems site procedures	Awareness	Aware that in some operating environments a NOTAM or equivalent is required prior to conducting demolitions.	1	1 / Timed Written Exam
4.18.994.3	Management & Leadership	Management and Operation of CDS	Operational Data Analysis	Analyse and Infer	Analyse operational data to assist in operations management, quality management and risk management of EOD tasks.	3	1 / Timed Written Exam
4.19.94.3	Management & Leadership	Allocate resources	Team selection	Team assignment	Assign suitable team to EOD task, weighing tasking information and team skill / experience	3	1 / Assessed live task
4.20.1070.3	Management & Leadership	Manage risk IMAS 07.14	Standardised RSPs	Understand	Understand and document standardised approved RSPs for all suitable items in area of	3	1 / Timed Written Exam

					operations. (e.g. RSP incorporating remote fuze removal).		
4.20.134.1	Management & Leadership	Manage risk IMAS 07.14	ICP & Team Safety	Enforce	Ensure ICP and team safety in relation to position and size of explosive hazard whilst on EOD task. "What is it, where is it and are we safe?"	1	1 / Visual/Oral
4.20.134.2	Management & Leadership	Manage risk IMAS 07.14	ICP & Team Safety	Enforce	Ensure ICP and team safety whilst on task	1	1 / Visual/Oral
4.20.135.1	Management & Leadership	Manage risk IMAS 07.14	Public Safety	Ensure	Ensure public safety during task by using mandated demolition safety distances	1	1 / Visual/Oral
4.20.136.2	Management & Leadership	Manage risk IMAS 07.14	RSP Evaluation	Discuss	Act as "sounding board" for Level 3 during RSP formulation. Be able to question Level 3 in a constructive manner.	2	1 / Assessed Timed Simulated Task
4.20.136.3	Management & Leadership	Manage risk IMAS 07.14	RSP Evaluation	Generate - Review - Check	Generate RSP options for a given EO threat, discuss with Level 2, revise and re-check	3	2 / Assessed Timed Simulated Task
4.20.137.15	Management & Leadership	Manage risk IMAS 07.14	Team movement	Control	Plan and control team movements in relation to hazards/hazardous areas in order to keep risks as low as reasonably practicable while on task	1	1 / Visual/Oral

4.20.137.1	Management & Leadership	Manage risk IMAS 07.14	Team movement	Plan	Plan and control team movements in order to keep risks as low as reasonably practicable while on task in controlled environment.	1	1 / Visual/Oral
4.20.137.3	Management & Leadership	Manage risk IMAS 07.14	Team movement	Review	Review movement of teams in area of operations and mitigate risk as required. e.g. Is there a mine threat?	3	1 / Assessed live task
4.22.87.2	Management & Leadership	Define area of task	Mapping of SHA/CHA	Record points	Record location of ERW and mines using GPS or using GIS tools without endangering self or others	2	2 / Visual/Oral
4.328.948.3	Management & Leadership	Authorisation	Demolitions Assessment	Determine	Determine if EOD-2 is safe and competent to conduct single or multi item demolitions or burns on specific named items or calibres on which they have been trained and recorded as authorised to destroy	3	1 / Focused skill test
4.328.949.3	Management & Leadership	Authorisation	Demolitions Assessment	Record	Record annually authorisation of EOD-2 for which responsible to conduct single or multi item demolitions or burns on specific named items or calibres on which they have been trained to destroy	3	1 / Focused skill test

4.328.950.3	Management & Leadership	Authorisation	Demolitions Assessment	Monitor	Monitor/quality assure EOD-2 demolition and burn activities for safety and competence. Assess/update ongoing authorisation in accordance with monitoring of EOD-2 dems and burns.	3	1 / Focused skill test
4.328.951.3	Management & Leadership	Authorisation	Demolitions Assessment	Maintain records	Maintain accurate records of authorisation of staff to conduct demolitions	3	1 / Focused skill test
4.328.979.3	Management & Leadership	Authorisation	Authorise L2	Determine	Determine if EOD-2 is safe and competent to conduct EOD tasks on items or calibres in appropriate environments	3	2 / Focused skill test
4.328.980.3	Management & Leadership	Authorisation	Authorise L2	Record	Record annually authorisation of EOD-2 for EOD tasks on specific named items or calibres on which they have been trained to destroy	3	2 / Focused skill test
4.328.981.3	Management & Leadership	Authorisation	Authorise L2	Monitor	Monitor/quality assure EOD-2 EOD tasks for safety and competence. Assess/update ongoing authorisation in accordance with monitoring of EOD-2.	3	2 / Focused skill test

4.328.982.3	Management & Leadership	Authorisation	Authorise L2	Maintain records	Maintain accurate records of authorisation of staff to conduct EOD taskings	3	2 / Focused skill test
4.328.987.2	Management & Leadership	Authorisation	Roving Tasks	Conduct	Plan and implement Roving EOD tasks within the scope authorised in writing by an EOD-3.	2	2 / Focused skill test
4.328.987.3	Management & Leadership	Authorisation	Roving Tasks	Determine	Determine if EOD-2 has demonstrated competency to conduct roving EOD tasks in a defined geographical area.	3	2 / Focused skill test
4.328.988.3	Management & Leadership	Authorisation	Roving Tasks	Authorise	Authorise in writing if EOD-2 has demonstrated competency to conduct roving EOD tasks in a defined geographical area.	3	2 / Focused skill test
4.328.989.3	Management & Leadership	Authorisation	EO Movement Assessment	Determine	Determine if an EOD-2 has demonstrated competence to assess arming state of explosive ordnance on which they have been recorded as trained	3	2 / Focused skill test
4.328.990.3	Management & Leadership	Authorisation	EO Movement Authorisation	Authorise	Authorise in writing if an EOD-2 has demonstrated competence to assess arming state of explosive ordnance on which they have been recorded as trained	3	2 / Focused skill test

4.328.991.3	Management & Leadership	Authorisation	Demolitions Authorisation	Authorise	Authorise in writing if an EOD-2 has demonstrated competence to conduct single or multi item demolitions or burns on specific named items or calibres on which they have been trained and recorded as authorised to destroy	3	2 / Focused skill test
4.338.1064.3	Management & Leadership	EOD Operational Risk Management	Risk Assessment	Draft	Draft written risk assessment for all EOD activities in area of responsibility	3	4 / Timed Written Exam
4.338.1065.3	Management & Leadership	EOD Operational Risk Management	Risk Assessment	Understand	Understand need to update SOPs accordingly as operational risk assessments evolve over time	3	1 / Timed Written Exam
4.338.1066.3	Management & Leadership	EOD Operational Risk Management	Risk Assessment	Brief	Brief control measures produced by EOD operational risk assessments to EOD staff	3	1 / Focused skill test
4.65.1060.3	Management & Leadership	Quality Management	EOD Certification	Certify	Certify EOD competencies of EOD-1 and EOD-2 staff in writing	3	2 / Focused skill test
4.65.160.1	Management & Leadership	Quality Management	IMAS 7 - 12	Comply	Be aware that SOPs and procedures are part of a wider quality framework	1	1 / Visual/Oral
4.65.160.2	Management & Leadership	Quality Management	IMAS 7 - 12	Check	Ensure that processes are carried out to set organisation	2	1 / Visual/Oral

					standards ensuring they are compatible with national standards		
4.65.160.3	Management & Leadership	Quality Management	IMAS 7 - 12	Understand	See SOPs and organisational processes as part of quality management framework that includes NMAS/IMAS and demonstrate how to review. e.g. list of proposed amendments	3	1 / Timed Written Exam
4.65.161.1	Management & Leadership	Quality Management	IMAS 7 - 30	Aware	Aware that EOD personnel and organisations should normally be accredited by an appropriate authority such as a NMAA and the relevant operating organisation	1	1 / Visual/Oral
4.65.161.2	Management & Leadership	Quality Management	IMAS 7 - 30	Check	Ensure that team members work to standards that will allow them to be appropriately accredited	2	1 / Visual/Oral
4.65.162.1	Management & Leadership	Quality Management	IMAS 7 - 40	Aware	Aware that organisation / team will be monitored for quality management purposes and that this drives safety	1	1 / Visual/Oral
4.65.162.2	Management & Leadership	Quality Management	IMAS 7 - 40	Facilitate	Facilitate quality monitoring visits and inspections by internal and NMAA quality management staff	2	1 / Visual/Oral

4.65.162.3	Management & Leadership	Quality Management	IMAS 7 - 40	Engage	Engage constructively with quality monitoring parties so that improvements in quality and safety are delivered	3	2 / Timed Written Exam
4.65.176.3	Management & Leadership	Quality Management	QC of reporting and IM	Accuracy of information	Ensure stringent accuracy and quality in EOD reporting and information management. Understand capture of relevant data is essential for accurate threat assessment and planning	3	2 / Timed Written Exam
5. Deployment & Post Task							
5.11.93.1	Deployment & Post Task	Tasking	Tasking chain	Aware	Aware of tasking chain and the link with authority to carry out EOD	1	1 / Visual/Oral
5.11.93.2	Deployment & Post Task	Tasking	Tasking chain	Know	Know the tasking chain and how EOD tasks are disseminated	2	1 / Visual/Oral
5.11.93.3	Deployment & Post Task	Tasking	Tasking chain	Refer up	Demonstrate ability to refer up or question tasking authority when outcome or purpose of proposed EOD task is unclear or safety is an issue	3	1 / Assessed Timed Simulated Task
5.12.166.3	Deployment & Post Task	Team Composition	Ensure compliance	Ensure	Know NMAS/SOP team composition requirement and organisation SOP requirements and ensure compliance for key	3	1 / Visual/Oral

					positions. i.e. medic, team leader		
5.8.184.1	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Extraction	Clear to	Clear up to and around an injured person in suspected mined area and extract by stretcher	1	4 / Visual/Oral
5.8.184.2	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Extraction	Extract	Supervise the correct method of recovery from an uncleared site of an injured person and co-ordinate the correct response from a medical team.	2	4 / Visual/Oral
5.8.90.1	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Medical equipment	Locate and prepare	Know basic medical equipment within team equipment and know how to use. (bandages, CAT tourniquet etc.)	1	1 / Visual/Oral
5.8.90.2	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Medical equipment	Checks	In conjunction with team medic / paramedic, check medical equipment as part of pre-task activity	2	2 / Visual/Oral
5.8.91.2	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Qualified and current	Currency check	Track team qualifications and currency on medical equipment and procedures	2	2 / Visual/Oral
5.8.92.1	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Medevac chain	Rehearse it	Know and rehearse the medevac chain, including driving with simulated casualty to medical facility and preparing	1	1 / Visual/Oral

					route cards for drivers. Carry out medevac training on all new sites and weekly thereafter.		
5.8.92.2	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Medevac chain	Rehearse it	Rehearse the medevac chain, including driving with simulated casualty to medical facility and preparing route cards for drivers. Carry out medevac training on all new sites and weekly thereafter.	2	1 / Visual/Oral
5.8.92.3	Deployment & Post Task	IMAS 10.40 / TN 10.40/01	Medevac chain	Design it	Liaise with appropriate level medical facilities and design a workable medevac chain for each given EOD task	3	2 / Visual/Oral
5.9.88.1	Deployment & Post Task	Checks	Pre-task checks	Conduct	Conduct pre-EOD task checks and calibration where required	1	1 / Visual/Oral
5.9.88.2	Deployment & Post Task	Checks	Pre-task checks	Supervise	Supervise and assist in conducting pre- EOD task checks	2	1 / Visual/Oral
5.9.88.3	Deployment & Post Task	Checks	Pre-task checks	Monitor	Monitor pre-task EOD equipment checks to ensure smooth-running of task site	3	1 / Visual/Oral
5.9.89.1	Deployment & Post Task	Checks	Post-task checks	Conduct	Conduct post-EOD task checks to ensure equipment ready for next use and order non explosive consumables	1	1 / Visual/Oral

5.9.89.3	Deployment & Post Task	Checks	Post-task checks	Supervise	Monitor post EOD task checks to ensure equipment maintenance of required standard	3	1 / Visual/Oral
6. Reporting & Data							
6.31.132.1	Reporting & Data	EOD Activity Reporting (Paper)	Paper Form	Fill in	Enter operational task data in to paper form or electronic form accurately	1	2 / Visual/Oral
6.31.132.3	Reporting & Data	EOD Activity Reporting (Paper)	Paper Form	Check and sign off	Check paper EOD report forms and sign if required before submission and prior to entry into the database	3	1 / Visual/Oral
6.32.80.1	Reporting & Data	Data Quality and Land Release	Understand Land Release	Data quality awareness	Aware of importance of data quality in all reporting and able to conduct QC of own reporting of EOD tasks as first part of QC	1	1 / Visual/Oral
6.329.178.3	Reporting & Data	EOD Activity Reporting: Forms	Form design	Adapt and Design	Be able to design suitable EOD reporting forms	3	3 / Visual/Oral
6.330.195.3	Reporting & Data	EOD Activity Reporting: Database	Database QC	Check and sign off	Conduct periodic check of reported EOD activities and outputs as entered into respective databases and sign off as correct and consistent with other databases. Search for errors and inconsistencies between datasets. E.g. EO	3	1 / Visual/Oral

					destroyed and explosive stores usage.		
6.331.133.1	Reporting & Data	EOD Activity Reporting (App)	Mobile App	Data entry	Enter EOD operational task data in to Mobile APP electronic form	1	2 / Visual/Oral
6.331.133.3	Reporting & Data	EOD Activity Reporting (App)	Mobile App	Check and submit	Check Mobile APP EOD report form in order to quality control, digitally sign if appropriate and submit as per SOPs	3	2 / Visual/Oral
6.34.1079.3	Reporting & Data	Operational Data	Mine Action Data Base	Draft	Design or adapt operational data collection forms in order to satisfy operational data needs and enable better risk, quality and operations management. Consider what new data might be worth collecting and what is not worth collecting.	3	1 / Timed Written Exam
6.34.1084.1	Reporting & Data	Operational Data	Individual EOD Operator Logs	Check and submit	Complete EOD task log for individual EOD tasks and enable verification by mine action organisation	1	1 / Visual/Oral
6.34.1084.2	Reporting & Data	Operational Data	Individual EOD Operator Logs	Check and submit	Complete EOD task log for individual EOD tasks and enable verification by mine action organisation	2	1 / Visual/Oral
6.34.1084.3	Reporting & Data	Operational Data	Individual EOD Operator Logs	Check and submit	Complete EOD task log for individual EOD tasks and enable	3	1 / Visual/Oral

					verification by mine action organisation		
6.34.1085.3	Reporting & Data	Operational Data	Review EOD Operator Logs	Check and sign off	Conduct quality control of individual EOD operator task logs and verify in writing.	3	1 / Visual/Oral
6.34.81.1	Reporting & Data	Operational Data	Mine Action Data Base	Understand	Understand how accurate and relevant information from operational data bases contributes to procedures used in the field - e.g. threat assessment.	1	4 / Visual/Oral
6.34.81.3	Reporting & Data	Operational Data	Mine Action Data Base	Use	Use relevant Mine Action data base(s) to plan tasks, update threat/risk assessment, view historical information and provide situational awareness.	3	4 / Visual/Oral
7. Storage & Transport							
7.314.72.3	Storage & Transport	AXO assessment	Fuze status	Assess fuze state	Assess fuze status of unboxed EO and decide if to designate appropriate HCC.	3	1 / Assessed live task
7.314.73.3	Storage & Transport	AXO assessment	Ammunition state	Assess compatibility	Assess stockpile from a compatibility perspective, taking sealed box markings as accurate	3	1 / Timed Written Exam

7.314.74.3	Storage & Transport	AXO assessment	Outload risks	Assess and Mitigate	Employ separation and barricades to reduce risk during outload of explosive stores	3	2 / Timed Written Exam
7.339.1068.3	Storage & Transport	Storage of Serviceable Explosive	Explosive Accounting	Account	Set up and assure explosive accounting of all EOD teams under supervision in accordance with IATG 03.10 Section 14	3	1 / Focused skill test
7.339.1069.3	Storage & Transport	Storage of Serviceable Explosive	Establish Store	Store	Establish basic explosive store for EOD team stores in accordance with IATG RRPLs as practicable, balancing security and explosive safety	3	2 / Timed Written Exam
7.42.67.1	Storage & Transport	Transport Legislation	Transport Legislation e.g. ADR	Awareness	Aware that dangerous goods transportation legislation exists, and know that this must be adhered to	1	1 / Visual/Oral
7.42.67.2	Storage & Transport	Transport Legislation	Transport Legislation e.g. ADR	Application to Ammunition	Know relevant legislation as detailed in SOPs as it applies to ammunition movement	2	2 / Timed Written Exam
7.42.67.3	Storage & Transport	Transport Legislation	Transport Legislation e.g. ADR	Understand	Understand appropriate local dangerous goods legislation for road legislation, IMAS, NMAS, and SOPs in order to enable adherence	3	2 / Timed Written Exam

7.43.76.1	Storage & Transport	Movement of items unsafe to store	Vehicle preparation	Sandbags	Prepare vehicle with sandbags, tarpaulin covers etc. to protect EO	1	1 / Focused skill test
7.43.76.2	Storage & Transport	Movement of items unsafe to store	Vehicle preparation	Signage	Prepare vehicle signage and paperwork as required	2	1 / Focused skill test
7.43.76.3	Storage & Transport	Movement of items unsafe to store	Vehicle preparation	Supervision	Supervise vehicle preparation and loading of ammunition while conducting ongoing risk management by assessing ammunition status	3	2 / Focused skill test
7.43.77.1	Storage & Transport	Movement of items unsafe to store	Safety and rolling cordon	Act as safety personnel	Act as sentry, cordon assistant or liaison during rolling cordon for ammunition movement	1	1 / Focused skill test
7.43.77.2	Storage & Transport	Movement of items unsafe to store	Safety and rolling cordon	Liaison with other agencies	Act as coordinator or liaison with other agencies, organising moving support for ammunition movement	2	1 / Focused skill test
7.43.77.3	Storage & Transport	Movement of items unsafe to store	Safety and rolling cordon	Route selection	Plan and select route for ammunition move in conjunction with other agencies required to execute the move	3	1 / Focused skill test
7.45.68.1	Storage & Transport	Movement of ammunition	Road	Pack under supervision	Pack ammunition under supervision.	1	2 / Focused skill test

7.45.68.2	Storage & Transport	Movement of ammunition	Road	Prepare vehicle	Prepare vehicle to receive and carry ammunition	2	2 / Focused skill test
7.45.68.3	Storage & Transport	Movement of ammunition	Road	Understand	Understand potential need to complete paperwork for movement of ammunition by road	3	2 / Focused skill test
7.45.905.3	Storage & Transport	Movement of ammunition	Assess suitability	Assess	Assess whether EO is suitable to move by road	3	2 / Focused skill test
7.46.400.3	Storage & Transport	AXO stockpile assessment	Ammunition state	Assess physical state	Assess physical state of ammunition in stockpile through inspection of samples as part of basic surveillance	3	2 / Assessed live task
7.46.71.1	Storage & Transport	AXO stockpile assessment	Booby trap threat	Awareness	Awareness that ammunition stockpiles/dumps can be booby-trapped	1	1 / Assessed live task
7.46.71.3	Storage & Transport	AXO stockpile assessment	Booby trap threat	Assess and Mitigate	Assess booby trap and IED risk in ammunition stockpiles through threat assessment and put in place appropriate evacuation	3	2 / Assessed live task
7.51.44.3	Storage & Transport	Safe handling	Handle EO	UXO vs AXO	Understand and communicate differences in handling approaches dependent on AXO or UXO	3	1 / Assessed Team Task

7.51.45.2	Storage & Transport	Safe handling	Package	Supervise	Supervise packaging of EO to agreed package design	2	1 / Assessed Team Task
7.51.45.3	Storage & Transport	Safe handling	Package	Understand	Understand the need to employ appropriate packaging and document EO contained within. Understand that outside of packaging EO is more prone to degradation.	3	1 / Assessed Team Task
7.74.198.2	Storage & Transport	Storage of stockpiled EO	Compatibility IATG 01.50	Hazard Divisions & HCC	Know and be able to explain all hazard divisions and HCCs as per UN International System of Classification	2	2 / Timed Written Exam
7.74.198.3	Storage & Transport	Storage of stockpiled EO	Compatibility IATG 01.50	Compatibility	Know and be able to explain all compatibility groups and associated mixing rules as per UN International System of Classification	3	4 / Timed Written Exam
7.74.69.2	Storage & Transport	Storage of stockpiled EO	Safe storage IATG 02.20	Record keeping	Accurately record all recovered AXO using appropriate process	2	1 / Assessed live task
7.74.69.3	Storage & Transport	Storage of stockpiled EO	Safe storage IATG 02.20	Understand	Understand the HCC of a range of common ordnance and apply to recovered AXO	3	2 / Assessed live task
7.74.70.2	Storage & Transport	Storage of stockpiled EO	Accounting IATG 03.10	Know limits	Monitor holdings against licenced limits and inform where necessary	2	1 / Assessed live task

8. Advanced Explosive Theory 3+							
8.322.911.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - AP Mines	Understand	Understand and be able to identify all energetic components of an AP mine (blast, directional, omnidirectional, bounding etc.) explosive train including primer/detonator, booster and main charge, and any propellant used in bounding fragmentation mines	3+	1 / Timed Written Exam
8.322.912.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - AV Mines	Understand	Understand and be able to identify all elements of an AV mine (blast, shaped charge) explosive train including primer/detonator, booster and main charge	3+	1 / Timed Written Exam
8.322.913.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Projectiles	Understand	Understand and be able to identify all energetic components of a fuze or unfuzed projectile (HEAT, HE, APHE-T, WP, HC, ILLUM etc.)	3+	1 / Timed Written Exam
8.322.914.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Mortars	Understand	Understand and be able to identify all energetic components of a fuze or unfuzed mortar (HE, WP, ILLUM etc.)	3+	1 / Timed Written Exam

8.322.915.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Grenade	Understand	Understand and be able to identify all energetic components of a grenade including main charge, booster and fuze. For propelled grenades be able to identify propellant charge and means of ignition, e.g. primer.	3+	4 / Timed Written Exam
8.322.916.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Guided Weapon	Understand	Understand and be able to identify all energetic components of a GW (ATGW, SAM etc.) including solid motor section and means of motor ignition (e.g. squib).	3+	1 / Timed Written Exam
8.322.917.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Submunition	Understand	Understand and be able to identify all energetic components of a Submunition including main charge and fuze	3+	1 / Timed Written Exam
8.322.918.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Aircraft Bomb	Understand	Understand and be able to identify all energetic components of a Aircraft Bomb including main charge, fuze conduits and if applicable fuzes (should already be separated)	3+	1 / Timed Written Exam
8.322.919.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Rocket	Understand	Understand and be able to identify all energetic components of a Rocket including fuze, booster, main	3+	1 / Timed Written Exam

					charge, motor section and means of ignition. e.g. squib, primer etc.		
8.322.920.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Recoilless Ammunition	Understand	Understand and be able to identify all energetic components of a Recoilless Projectile including fuze, booster, main charge, motor section and means of ignition. e.g. squib, primer etc.	3+	1 / Timed Written Exam
8.322.921.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - LMM	Understand	Understand and be able to identify all energetic components of a Locally Manufactured Munition (LLM) including fuze, booster and main charge. Understand explosive compositions might be improvised and potentially are less stable	3+	1 / Timed Written Exam
8.322.922.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Fuzes	Understand	Understand and be able to identify all energetic components of a fuze/fuzing system for all ordnance groups/categories. Be able to identify key elements such as primers, detonators, stemming, and boosters	3+	2 / Timed Written Exam

8.322.923.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - XRAY	Conduct	Conduct X-ray of proposed FFE device in situ should visual confirmation that all elements of the explosive train and/or propulsion are absent not be possible. Conduct x-ray using portable equipment in accordance with safety regulations.	3+	1 / Focused skill test
8.322.924.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Visual Assessment	Conduct	Understand visual indications that elements of the explosive train have functioned. e.g. indentation on primer, fragmentation of booster casing, burn marks around any stemming etc.	3+	4 / Focused skill test
8.322.925.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Coding system	Create	Create suitable FFE coding system, in line with organisational SOPs and NMAAs as applicable. Ensure all FFE items are marked so that it is not possible to mix with live items. Ensure all FFE items are readily and easily identifiable.	3+	1 / Focused skill test
8.322.926.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Register	Create	Create FFE register, in line with organisational SOPs, NMAS and IMAS 10.50 Annex F as applicable. Ensure procedures are in place for the register to be	3+	1 / Focused skill test

					maintained by a responsible individual with suitable 3+ qualification. Ensure up to date register is forwarded to organisation HQ to update global register.		
8.322.927.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Security	Implement	Implement physical security measures for all FFE items so that items cannot be accessed/moved without the responsible individual's approval	3+	1 / Focused skill test
8.322.928.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Accounting	Account	Account for all FFE items by conducting physical reconciliation between register and and physical items.	3+	1 / Focused skill test
8.322.929.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Understanding	Understand	Understand the obligation to admit uncertainty about an assessed item and reject it as FFE until confirmation is achieved	3+	1 / Timed Written Exam
8.322.930.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Liability	Understand	Understand personal and organisational legal liability for certifying/confirming an item as FFE	3+	1 / Timed Written Exam

8.322.931.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Difference	Understand	Understand clear difference in being able to assess an item as FFE and being to make it FFE through a validated demilitarisation/INERTING process. Understand demilitarisation/INERTING is a separate set of competencies not included in Advanced Explosive Theory 3+	3+	1 / Timed Written Exam
8.322.952.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - IMAS	Create	Be able to write in their own words a full technical breakdown of each item, to a standard format, that they wish the technical manager to authorise them to confirm as FFE.	3+	2 / Timed Written Exam
8.322.953.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - IMAS	Understand	Understand the need to attain authorisation to create FFE certification from higher authority. E.g. Country Manager. NMAA Technical Lead.	3+	1 / Timed Written Exam
8.322.954.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - IMAS	Understand	Understand they should not QC an FFE certificate unless they themselves can create a full technical breakdown for a given item. Understand they should not rely on an existing full technical breakdown.	3+	1 / Timed Written Exam

8.322.955.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - IMAS	Understand	Maintain records of all written Full Technical Breakdowns of items that have that have been certified and authorised in the organisation	3+	1 / Timed Written Exam
8.322.956.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Risk Management	Create	Create a comprehensive risk assessment for all FFE certification practices within an organisation with a full list of control measures	3+	1 / Focused skill test
8.322.957.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - Risk Management	Create	Be able to create an FFE SOP, in relation to the FFE Risk Assessment, and in accordance with IMAS 10.50 Annex F.	3+	1 / Focused skill test
8.322.960.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - ID of Energetics	Know	Know the solubility of different primary, secondary and main charge explosives. E.g. Addition of alkaline to substance which turns red/pink might indicate presence of TNT.	3+	1 / Focused skill test
8.322.961.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - ID of Energetics	Understand	Be able to list all energetic components of an item proposed for certification as FFE	3+	1 / Focused skill test
8.322.962.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE - ID of Energetics	Understand	List all energetic components confirmed as absent from an	3+	1 / Focused skill test

					item declared FFE on an FFE certificate		
8.322.963.4	Advanced Explosive Theory 3+	Training Aid Safety	FFE- Electronic Fuzing	Understand	Understand difficulty in identifying detonators or boosters in electronic fuzing and know the need to distinguish from batteries on any xray image.	3+	1 / Focused skill test
8.322.976.4	Advanced Explosive Theory 3+	Training Aid Safety	XRAY interpretation	Assess	Assess a variety of X-Ray image types (digital, wet film, monochrome, colour) for explosive fill presence / absence and position of mechanical components to make accurate assessment of whether item is free from explosive.	3+	2 / Focused skill test
8.327.932.4	Advanced Explosive Theory 3+	Insensitive Munitions	IM - Energetics	Know	Know key energetics used in IM formulations and why they are used for this purpose, e.g. Nitro Aromatics such as TATB insensitivity to impact/shock/thermal stimuli. E.g. FOX-7, DNAN, NTO etc.	3+	1 / Timed Written Exam
8.327.933.4	Advanced Explosive Theory 3+	Insensitive Munitions	IM - Tests	Aware	Aware of IM testing regime for munitions used by many modern militaries. Aware of stimuli employed. FH, SH, BI, FI, SR	3+	1 / Timed Written Exam

					and SCJA and the respective IM responses		
8.57.104.4	Advanced Explosive Theory 3+	Liquid propellants	PPE & Operator Safety	Select	Use respirators and protective suits to enable approach, diagnosis and handling of liquid propellant threat	3+	2 / Focused skill test
8.57.105.4	Advanced Explosive Theory 3+	Liquid propellants	Public Safety	Calculate	Calculation of explosive and downwind hazard area for liquid propellant hazardous fumes	3+	4 / Focused skill test
8.57.107.4	Advanced Explosive Theory 3+	Liquid propellants	Disposal Options	Select	Select and execute disposal option of liquid propellants	3+	8 / Focused skill test
8.84.252.4	Advanced Explosive Theory 3+	High Explosive	Tests	Aware	Aware of impact testing (Trauzl), ABL friction test, thermal sensitivity tests.	3+	2 / Timed Written Exam
8.84.253.4	Advanced Explosive Theory 3+	High Explosive	VOD	Understand	Understand link between Velocity of Detonation and density of an energetic formulation. (Marshall's Formula.)	3+	2 / Timed Written Exam
8.84.254.4	Advanced Explosive Theory 3+	High Explosive	Fragmentation	Aware	Aware of Gurney equations and how these predict how fast an explosive will accelerate an adjacent layer of metal or other material when the explosive detonates. Be aware of the	3+	2 / Timed Written Exam

					range of Gurney velocities for some common high explosives.		
8.84.255.4	Advanced Explosive Theory 3+	High Explosive	Critical diameter	Understand	Understand principle of critical diameter and how it relates to use of PETN for detonation cord.	3+	1 / Timed Written Exam
8.84.262.4	Advanced Explosive Theory 3+	High Explosive	Shaped charges	Understand	Understand use of different explosive formulations in shaped charge and EFP effectiveness. (Marshall's Formula. Cook's Formula). Significance of charge density.	3+	3 / Timed Written Exam
8.84.263.4	Advanced Explosive Theory 3+	High Explosive	Insensitive	Understand	Aware of common IM/LOVA formulations. (e.g. IMX-101, IMX-104).	3+	1 / Timed Written Exam
8.84.264.4	Advanced Explosive Theory 3+	High Explosive	Insensitive disposal	Understand	Aware of difficulties in high order of insensitive munitions by means of secondary detonation. Aware of best method to use fuze well if available and if not use sufficient supplementary donor charge.	3+	1 / Timed Written Exam
8.84.265.4	Advanced Explosive Theory 3+	High Explosive	Chemical classification	Understand	Understand nitramine (N-Nitro), nitro-ester (O-Nitro), nitro-aromatic (C-Nitro) and peroxide classifications of high explosives, being able to name	3+	1 / Timed Written Exam

					the most common explosives found in each group.		
8.84.266.4	Advanced Explosive Theory 3+	High Explosive	Nitration	Aware	Aware of process of nitration using nitric and sulphuric acid to manufacture most military molecular explosives.	3+	3 / Timed Written Exam
8.84.274.4	Advanced Explosive Theory 3+	High Explosive	PBX	Understand	Identify common types of Polymer Bonded Explosives including LX-14, PBXN-5 and PBXN-9.	3+	2 / Timed Written Exam
8.85.256.4	Advanced Explosive Theory 3+	Commercial Explosives	Secondary	Understand	Be able to identify and know the key performance characteristics (density, critical diameter, VOD) of commercial explosives including ANFO, ALANFO (including implication of % changes in constituent ingredients), dynamite, gelatin, emulsion explosives, water gel/slurry, blends and cast boosters (pentolite, Comp B, Amatol, Tetryl).	3+	4 / Timed Written Exam
8.85.257.4	Advanced Explosive Theory 3+	Commercial Explosives	Binary	Understand	Be able to identify and know key binary explosives including NMD, FIXOR. (ANFO also technically a binary explosive).	3+	2 / Timed Written Exam

8.85.258.4	Advanced Explosive Theory 3+	Commercial Explosives	Low	Understand	Be able to identify and know key low explosives. Black Powder/Saltpetre. Know uses from specialist blasting to illegal use in pipe bombs	3+	1 / Timed Written Exam
8.85.272.4	Advanced Explosive Theory 3+	Commercial Explosives	Detonators, Boosters & Det Cord	Understand	Understand difference in Instantaneous, Millisecond and Long Period detonators, boosters and detonating cord. Understand electric vs nonel and high voltage electric initiation for oil and gas applications	3+	1 / Timed Written Exam
8.86.259.4	Advanced Explosive Theory 3+	Propellant	Types	Understand	Understand difference in composition and use of single, double and triple based propellant including stabiliser related hazards (spontaneous fire risk) of military NC/NG based propellants	3+	2 / Timed Written Exam
8.86.261.4	Advanced Explosive Theory 3+	Propellant	Liquids	Understand	Aware of common forms of liquid bi-propellant and the inherent danger involved in their disposal. (RFNA. UDMH).	3+	2 / Timed Written Exam
8.87.260.4	Advanced Explosive Theory 3+	Improvised Explosives	Makeup	Understand	Aware of common forms of improvised propellant. (Sugar+Potassium Nitrate)	3+	1 / Timed Written Exam

8.88.267.4	Advanced Explosive Theory 3+	Explosive Train	Transition to detonation	Understand	Understand DDT, SDT, XDT as concepts	3+	2 / Timed Written Exam
8.88.273.4	Advanced Explosive Theory 3+	Explosive Train	Initiation	Understand	Identify Nonel shock tube. Identify different types of detonator. Identify different grades of detonation cord. Identify igniter cord connectors. Identify difference between detonators with electric and pyro delay.	3+	2 / Timed Written Exam
8.89.270.4	Advanced Explosive Theory 3+	Explosive theory	Explosive composition	Understand	Understand that an explosion is a typically chemical reaction involving a fuel (e.g. hydrocarbons) and an oxidiser (air or certain chemicals) to form CO ₂ , CO, H ₂ O and heat. Understand difference between explosive mixtures (combustion) and explosive molecules (detonation).	3+	2 / Timed Written Exam
8.89.271.4	Advanced Explosive Theory 3+	Explosive theory	Mix vs Molecular	Understand	Understand difference between mixture (e.g. black powder) and molecular explosive (e.g. TNT). Understand that most military explosives are molecular.	3+	3 / Timed Written Exam

8.89.276.4	Advanced Explosive Theory 3+	Explosive theory	TNT Equivalence	Understand	Understand comparing the power of explosives using TNT equivalence, concept of pressure at scaled distance.	3+	2 / Timed Written Exam
8.89.277.4	Advanced Explosive Theory 3+	Explosive theory	Blast	Understand	Understand basic profile of a blast wave including positive and negative durations, impulse and peak over pressure.	3+	2 / Timed Written Exam
8.89.278.4	Advanced Explosive Theory 3+	Explosive theory	Reflected blast	Understand	Understand reflected blast waves and the implications of this for explosions in confined areas. E.g. urban areas. Aware of computational models as the primary means of assessing complex fluid dynamics	3+	2 / Timed Written Exam
8.89.279.4	Advanced Explosive Theory 3+	Explosive theory	Blast wave	Understand	Understand the difference between primary and secondary blast effects. Understand use of the term tertiary effects.	3+	1 / Timed Written Exam
8.89.281.4	Advanced Explosive Theory 3+	Explosive theory	Detonators	Understand	Understand difference in role and function of electric, Exploding Bridgewire and Exploding Foil Initiator detonators.	3+	1 /Timed Written Exam

8.89.282.4	Advanced Explosive Theory 3+	Explosive theory	Oxygen balance	Understand	Understand basic principle of oxygen balance of molecular explosives and mixtures such as ANFO and be able to chart O ² scale of main explosives.	3+	2 / Timed Written Exam
8.89.283.4	Advanced Explosive Theory 3+	Explosive theory	Common formulations	Know	Know TNT, RDX, HMX, PETN, Tetryl, Lead Azide, Lead Styphnate and tetrazene as the key primary and secondary high explosive constituents	3+	3 / Timed Written Exam
8.89.284.4	Advanced Explosive Theory 3+	Explosive theory	Non-metallic additives	Know	Know and understand the role of the key binders, plasticisers, stabilisers within explosive formulations	3+	1 / Timed Written Exam
8.89.285.4	Advanced Explosive Theory 3+	Explosive theory	Metallic additives	Know	Know how aluminium is used to increase heat of explosion and duration of pressure. Know application including for naval use (TORPEX), improvised formulations (ALANFO), conventional use (Tritinol, H6, Minol)	3+	2 / Timed Written Exam
8.89.500.4	Advanced Explosive Theory 3+	Explosive theory	Russian Designations	Know	Know Russian explosive designations, and constituent molecular explosives. A-IX-1, A-IX-2, TG-30, TG-40, TG-50	3+	1 / Timed Written Exam

8.89.501.4	Advanced Explosive Theory 3+	Explosive theory	Brand Names	Know	Know the range of explosive brands/names and the key constituents of such names. Amatol, Amatex, Baratol, Dunnite, C-4, COMP B, COMP C. COMP H6, Cyclotol, Hexanite, Lyddite, Octol, Okfol, PE4, PE8, Pentolite, Picratol, Semtex 1A, Semtex 1H, Shellite, Titadine, Tonite, Torpex, Trialen, Tritonal	3+	2 / Timed Written Exam
8.89.502.4	Advanced Explosive Theory 3+	Explosive theory	Thermite	Know	Know use/ chemical composition of Thermite (iron, manganese, copper etc.) with particular focus on EOD applications.	3+	1 / Timed Written Exam
8.89.504.4	Advanced Explosive Theory 3+	Explosive theory	Toxicity: common energetics	Understand	Understand relative toxicity of common energetics such as TNT, RDX and HMX and potential risk concentrations of these pose to the environment	3+	2 / Timed Written Exam
8.89.505.4	Advanced Explosive Theory 3+	Explosive theory	Toxicity: Perchlorate	Understand	Understand toxicity of ammonium perchlorate and potential risk it poses to the environment	3+	1 / Timed Written Exam
8.89.506.4	Advanced Explosive Theory 3+	Explosive theory	Toxicity: DU	Understand	Understand toxicity of DU and potential risk DU poses to	3+	2 / Timed Written Exam

					personnel (Alpha particle) and the environment		
8.89.507.4	Advanced Explosive Theory 3+	Explosive theory	Toxicity: HMTA	Understand	Understand toxicity of HMTA and potential risk HMTA poses to personnel and the environment	3+	2 / Timed Written Exam
8.89.508.4	Advanced Explosive Theory 3+	Explosive theory	Toxicity: Lead	Understand	Understand toxicity of lead found in SAA and potential risk lead poses to the environment	3+	2 / Timed Written Exam
8.89.958.4	Advanced Explosive Theory 3+	Explosive theory	NATO Designations	Know	Know such NATO explosive designations as exist, and constituent molecular explosives. E.g. COMP A, B, C etc.	3+	1 / Timed Written Exam
8.89.959.4	Advanced Explosive Theory 3+	Explosive theory	Detonators	Understand	Understand use of time delay electrical detonators (IED, SPD, LDP) for sequential bulk demolitions for range limit scenarios and for commercial scenarios e.g. building demolition, quarrying.	3+	1 / Timed Written Exam
8.89.98.4	Advanced Explosive Theory 3+	Explosive theory	Detonators	Understand	Understand term "cap sensitive" in US regulation and how this refers to sensitiveness to No.8 blasting cap of blasting cap with equivalent PETN charge	3+	1 / Timed Written Exam

8.91.280.4	Advanced Explosive Theory 3+	Explosive Formulations	Desensitising	Understand	Understand the principles of using one explosive, or an inert substance, to desensitize another. E.g. Use of TNT and HMX in Okfol and Octol. Use of TNT and RDX in Comp B.	3+	2 / Timed Written Exam
9. Bulk Demolitions 3+							
9.120.403.4	Bulk Demolitions 3+	Theory	Propagation	Determine	Given a set of EO to destroy (greater than 50kg Net Explosive Quantity), design the optimal stack taking in to account the propagation of the blast wave through the different ammunition natures	3+	4 / Timed Written Exam
9.120.604.4	Bulk Demolitions 3+	Theory	Design dems stack	Design	Design bulk demolition stack (greater than 50kg Net Explosive Quantity) in accordance with the ordnance to be destroyed in order to maximise sympathetic detonation of the maximum number of items, making use of items with higher VODs and thinner casings. e.g. certain shaped charge munitions.	3+	4 / Assessed live task

9.120.605.4	Bulk Demolitions 3+	Theory	Design priming plan	Design	Design priming plan for bulk demolition stack in order to make best use of explosives stores available and where possible ensure priming on multiple layers	3+	2 / Assessed live task
9.120.616.4	Bulk Demolitions 3+	Theory	Understand explosive limitations	Understand	Understand limitations of poor quality TNT based munitions and the donor charge requirements to mitigate chances of partial detonations and kick outs	3+	1 / Assessed live task
9.120.617.4	Bulk Demolitions 3+	Theory	Separate APHE ammunition	Understand	Understand why APHE ammunition should not be included in bulk demolition stacks but destroyed by single item demolition	3+	1 / Visual/Oral
9.120.618.4	Bulk Demolitions 3+	Theory	Separate SAA	Understand	Understand why SAA should not typically be included in bulk demolition stacks but burnt with environmental risks taken into consideration	3+	1 / Visual/Oral
9.230.607.4	Bulk Demolitions 3+	Documentation	Range Documentation	Draft	Draft bulk demolitions SOP detailing measures beyond single and multi item demolitions and including all measures to	3+	4 / Timed Written Exam

					increase safety and reduce kick out.		
9.230.608.4	Bulk Demolitions 3+	Documentation	Risk Management	Draft	Draft general range risk assessment including safety distances, items of AXO permitted for inclusion in bulk dems, PERSONLIMITS, control of exploders, separation of detonators etc.	3+	3 / Timed Written Exam
9.230.609.4	Bulk Demolitions 3+	Documentation	Range Documentation	Draft	Draft Range Standing Orders that reflects general range risk assessment	3+	3 / Timed Written Exam
9.230.610.4	Bulk Demolitions 3+	Documentation	Risk Management	Draft	Draft specific range risk assessment in accordance with explosive ordnance to be destroyed if beyond that normally permitted or if ordnance presents any specific risk. e.g. HCC L EO	3+	3 / Timed Written Exam
9.230.613.4	Bulk Demolitions 3+	Documentation	Range Documentation	Plan	Plan bulk demolition serial in accordance with SOPs and range Standing Orders in form of written Range Letter	3+	4 / Timed Written Exam
9.312.890.4	Bulk Demolitions 3+	New CDS Documentation	New CDS Map	Map	Map area for a new CDS in detail, noting access, landscape, relief, local population issues	3+	2 / Timed Written Exam

9.312.891.4	Bulk Demolitions 3+	New CDS Documentation	New CDS Risk Assessment	Risk Assess	Conduct safety risk assessment for new CDS using the map as the definitive source document. Liaise with local authorities	3+	4 /Timed Written Exam
9.312.892.4	Bulk Demolitions 3+	New CDS Documentation	Derive limits	Derive Limits	Derive limits for new CDS based on detailed mapping and risk assessments conducted and weather / conditions issues	3+	2 / Timed Written Exam
9.312.893.4	Bulk Demolitions 3+	New CDS Documentation	New CDS standing orders	Write	Write standing orders for new CDS which summarise the mapping, risk assessing and limits work, plus add any site specific risk mitigation measures	3+	2 / Timed Written Exam
9.312.935.4	Bulk Demolitions 3+	New CDS Documentation	New CDS Risk Assessment	Risk Assess	Conduct environmental risk assessment for new CDS using multiple sources including maps, satellite imagery, basic soil sampling etc. Liaise with local authorities	3+	2 / Visual/Oral
9.75.209.4	Bulk Demolitions 3+	WP	Differentiate	Understand	Understand how bulk dems can be a means to destroy some forms of WP ordnance but not others	3+	1 / Timed Written Exam
9.75.210.4	Bulk Demolitions 3+	WP	Destroy	Understand	Understand different ways of destroying non-persistent forms of WP by means of bulk demolition including either	3+	1 / Timed Written Exam

					deliberate spreading and encasing		
9.75.211.4	Bulk Demolitions 3+	WP	Identify	Able	Able to identify persistent felt based WP ordnance and separate for specialist destruction techniques	3+	2 / Visual/Oral
9.76.212.4	Bulk Demolitions 3+	Range Safety	Check	Check	Check demolition pit after soak period for any WP indications and if present plan raking regime for following weeks until indications cease	3+	2 / Focused skill test
9.76.219.4	Bulk Demolitions 3+	Range Safety	Briefing	Brief	Brief demolitions team on range plan including relevant points from Range Letter, Risk Assessment, and Range Standing Orders	3+	2 / Assessed live task
9.76.220.4	Bulk Demolitions 3+	Range Safety	Continually assess	Conduct	Conduct rolling risk assessment while acting as Range Conducting Officer on site	3+	4 / Assessed live task
9.76.221.4	Bulk Demolitions 3+	Range Safety	Re-brief	Re-brief	Re-brief rolling risk assessment to demolitions team as necessary while acting as Range Conducting Officer on site	3+	1 / Assessed live task

9.76.223.4	Bulk Demolitions 3+	Range Safety	Cordon	Command	Command and control demolitions cordon. Ensure cordon is suitable for given stage of demolitions process. i.e. full cordon during demolitions serial, possibly limited cordon during stack construction	3+	4 / Assessed live task
9.76.229.4	Bulk Demolitions 3+	Range Safety	Exploder	Control	Control Exploder (wireless or otherwise) throughout all demolition serials	3+	1 / Assessed live task
9.76.230.4	Bulk Demolitions 3+	Range Safety	Detonators	Secure	Secure all detonators in suitable marked box that shields from RADHAZ. Ensure all detonators remain away from demolitions stack and donor charges until final priming of the demolitions stack. Control detonators at all times.	3+	1 / Assessed live task
9.76.245.4	Bulk Demolitions 3+	Range Safety	Communication	Ensure	Ensure two means of communication (VHF, HF, SAT Phone, Mobile Network etc.) are available to range management team at all times	3+	1 / Assessed live task
9.76.246.4	Bulk Demolitions 3+	Range Safety	RADHAZ	Enforce	Enforce RADHAZ discipline when using electric detonators at all times on site - limit use of mobile phones and handheld	3+	1 / Assessed live task

					radios to select individuals on site in pre defined locations.		
9.76.248.4	Bulk Demolitions 3+	Range Safety	Fire	Understand	Understand risk of range fire subject to prevailing vegetation and seasonal conditions	3+	1 / Timed Written Exam
9.76.249.4	Bulk Demolitions 3+	Range Safety	Fire Plan	Ensure	Ensure contingency plan in place to control range fire post blast with adaption if fire occurs where kick outs are probable	3+	2 / Focused skill test
9.76.250.4	Bulk Demolitions 3+	Range Safety	Downwind Hazard	Estimate	Estimate downwind hazard if nature of EO requires. e.g. WP	3+	3 / Timed Written Exam
9.76.251.4	Bulk Demolitions 3+	Range Safety	Weather	Conduct	Conduct demolitions in accordance with prevailing weather condition. Understand not to conduct bulk demolitions during lightning or potential flooding conditions in dems pit	3+	1 / Timed Written Exam
9.76.600.4	Bulk Demolitions 3+	Range Safety	Assess explosive ordnance	Assess	Assess explosive ordnance prior to inclusion in a bulk demolition to ascertain whether AXO or UXO	3+	2 / Assessed live task
9.76.601.4	Bulk Demolitions 3+	Range Safety	Range Management	Brief	Brief bulk demolition plan to demolition team in accordance with range letter as applicable	3+	2 / Assessed live task

9.76.602.4	Bulk Demolitions 3+	Range Safety	Calculate demolition AUW	Calculate	Calculate AUW and NEQ of a bulk demolition by accurately identifying the AUW and NEQ of all target items	3+	2 / Timed Written Exam
9.76.603.4	Bulk Demolitions 3+	Range Safety	Pre-check demolition area	Check	Check demolition area prior to team access to site to minimise risk of unsafe UXO from previous demolition being present	3+	1 / Assessed live task
9.76.606.4	Bulk Demolitions 3+	Range Safety	Designate PERSONLIMITS	Designate	Designate PERSONLIMITS around demolition stack at respective stages of stack preparation	3+	1 / Assessed live task
9.76.611.4	Bulk Demolitions 3+	Range Safety	Inventory ordnance	Inventory	Inventory ordnance selected for bulk demolition and assess whether safe or not for transport prior to vehicle loading and after vehicle unloading	3+	4 / Assessed live task
9.76.612.4	Bulk Demolitions 3+	Range Safety	Know IMAS TN 10.20/01	Know	Know fragmentation safety distance options outlined in IMAS TN 10.20/01 and understand the difference in respective calculations based on AUW and NEQ	3+	2 / Timed Written Exam

9.76.614.4	Bulk Demolitions 3+	Range Safety	Select safety distance option	Select	Select fragmentation danger area from options presented in IMAS TN 10.20/01 and justify why option is selected for a given range	3+	2 / Visual/Oral
9.76.615.4	Bulk Demolitions 3+	Range Safety	Separate UXO	Separate	Separate any UXO brought to the range for destruction by other agencies as a deliberate EOD task unless specific detailed assessment of fuzing permits movement and inclusion in a bulk demolition stack	3+	4 / Assessed live task
9.76.909.4	Bulk Demolitions 3+	Range Safety	Enforce PERSONLIMITS	Enforce	Enforce PERSONLIMITS at demolition stack throughout all stages of preparation	3+	1 / Assessed live task
9.77.213.4	Bulk Demolitions 3+	Protective works	Undercuts	Understand	Understand means of influencing predominant fragmentation direction of bulk demolition by use of undercuts in side of existing demolition pit	3+	2 / Timed Written Exam
9.77.214.4	Bulk Demolitions 3+	Protective works	Tamping	Understand	Understand means of tamping demolitions to reduce fragmentation including use of sandbags	3+	2 / Timed Written Exam

9.77.215.4	Bulk Demolitions 3+	Protective works	Tamping Requirements	Know	Know if tamping is required to enable given AUW within range limit in accordance with Range Standing Orders	3+	1 / Focused skill test
9.78.216.4	Bulk Demolitions 3+	Conduct of Demolitions	Range limits	Know	Know if sequential or simultaneous demolitions are permitted by Range Standing Orders in order to enable greater net NEQ to be destroyed by means of multiple serials	3+	1 / Assessed live task
9.78.217.4	Bulk Demolitions 3+	Conduct of Demolitions	Simultaneous	Know	Know how to set up simultaneous demolitions with multiple firing at the same time	3+	1 / Assessed live task
9.78.218.4	Bulk Demolitions 3+	Conduct of Demolitions	Sequential	Know	Know how to set up and protect a sequential demolition's means of initiation to mitigate fragmentation damage	3+	1 / Assessed live task
9.78.222.4	Bulk Demolitions 3+	Conduct of Demolitions	Command & Control	Command	Command and control demolitions team during construction of the demolitions stack to ensure safe range conduct at all stages	3+	4 / Assessed live task
9.78.224.4	Bulk Demolitions 3+	Conduct of Demolitions	Non-Electric	Conduct	Conduct bulk demolitions by non-electric means (flash detonator and safety fuze) if RADHAZ risk requires	3+	4 / Focused skill test

9.78.225.4	Bulk Demolitions 3+	Conduct of Demolitions	Electrical initiation	Conduct	Conduct bulk demolition by electrical initiation unless RADHAZ risk inhibits, understanding the great command and control this gives the Range Conducting Officer	3+	4 / Focused skill test
9.78.226.4	Bulk Demolitions 3+	Conduct of Demolitions	Wireless	Know	Know how to use means of wireless initiation. E.G. DRFD, BIRIS and PRIME	3+	1 / Focused skill test
9.78.227.4	Bulk Demolitions 3+	Conduct of Demolitions	Firing Cable	Know	Know how to use standard means of electrical initiation utilizing full length of firing cable. E.G. SHRIKE, Beethoven etc.	3+	1 / Focused skill test
9.78.228.4	Bulk Demolitions 3+	Conduct of Demolitions	Cable checks	Supervise	Supervise firing cable checks to ensure continuity	3+	1 / Focused skill test
9.78.233.4	Bulk Demolitions 3+	Conduct of Demolitions	Minimum explosive use	Understand	Understand how to use minimal explosive to prime a demolitions stack by utilizing fuze wells.	3+	2 / Timed Written Exam
9.79.231.4	Bulk Demolitions 3+	Commercial Explosive	Commercial Explosive	Know	Know respective commercial explosives potentially available (pentolite, emulsion explosive, slurry, dynamite, ALANFO etc.)	3+	4 / Timed Written Exam
9.79.232.4	Bulk Demolitions 3+	Commercial Explosive	Commercial Explosive Use	Understand	Understand how commercial explosive can be used in conjunction with or in certain	3+	2 / Timed Written Exam

					circumstances as a substitute for military grade molecular explosive. Understand limitations of certain commercial explosives when conducting second order demolitions.		
9.80.234.4	Bulk Demolitions 3+	Environmental impact of EOD	Priming	Understand	Understand advantage of priming AXO using fuze well for potential explosive deposition in the soil, especially for Insensitive Munitions	3+	1 / Timed Written Exam
9.80.235.4	Bulk Demolitions 3+	Environmental impact of EOD	Impact	Understand	Understand potential environmental impact of repeat demolitions in areas with acidic soil and nearby water courses or shallow water tables	3+	1 / Timed Written Exam
9.80.236.4	Bulk Demolitions 3+	Environmental impact of EOD	Acidity	Understand	Understand how to test acidity of soil using basic PH testing equipment when selecting Central Demolition Area	3+	1 / Timed Written Exam
9.80.237.4	Bulk Demolitions 3+	Environmental impact of EOD	Burning	Understand	Understand risk inherent in burning propellant including environmental risk of ammonium perchlorate deposition and safety risk of Hydrochloric acid (HCl) hazard in aftermath of	3+	1 / Timed Written Exam

					burning perchlorate based propellants		
9.81.238.4	Bulk Demolitions 3+	Remediation	Plan	Plan	Plan post demolition site search for potential UXO left after bulk demolition serials	3+	2 / Visual/Oral
9.81.239.4	Bulk Demolitions 3+	Remediation	Search	Conduct	Conduct post demolition site search for potential UXO left after bulk demolition serials	3+	2 / Assessed live task
9.82.240.4	Bulk Demolitions 3+	Post task reporting	Record EO	Record	Record comprehensively model of all items destroyed during bulk demolitions serials	3+	1 / Assessed live task
9.82.241.4	Bulk Demolitions 3+	Post task reporting	Record stores	Record	Record comprehensively all explosive stores used during bulk demolitions serials	3+	1 / Assessed live task
9.82.242.4	Bulk Demolitions 3+	Post task reporting	Record demolition	Report	Report in accordance with NMAS and SOPs all demolition serials including required detail on items confirmed as destroyed and explosive stores used	3+	2 / Assessed live task
9.82.247.4	Bulk Demolitions 3+	Post task reporting	Range Record	Ensure	Ensure range log is completed accurately and comprehensively in real time if required by NMAS or SOPs	3+	1 / Assessed live task

9.83.243.4	Bulk Demolitions 3+	Medical support IMAS 10.40 TN 10.40/01	Plan	Plan	Plan medical coverage for bulk demolition range serials including comprehensive CASEVAC/MEDEVAC plan	3+	4 / Timed Written Exam
9.83.244.4	Bulk Demolitions 3+	Medical support IMAS 10.40 TN 10.40/01	Ensure	Ensure	Ensure medical coverage including trauma medic and ambulance available for all live bulk demolition serials	3+	2 / Assessed live task
9.83.970.4	Bulk Demolitions 3+	Medical support IMAS 10.40 TN 10.40/01	Rehearse	Conduct	Conduct CASEVAC/MEDEVAC rehearsal on range as required by NMAS/SOPs	3+	1 / Assessed live task
10. Aerial Bombs 3+							
10.108.335.4	Aerial Bombs 3+	Specifics – Russia FWP	High Explosive	Aware	Aware of the range of Russian high explosive aerial bombs including FAB, OFAB, BETAB, BRAB, KAB, UB	3+	1 / Timed Written Exam
10.108.336.4	Aerial Bombs 3+	Specifics – Russia FWP	Cluster / Containers	Aware	Aware of the range of Russian cluster munitions containers including RBK and KMGU variants. Understand the respective payloads of what submunitions are utilised.	3+	1 / Timed Written Exam
10.108.337.4	Aerial Bombs 3+	Specifics – Russia FWP	Submunitions	Aware	Aware of the range of Russian submunitions including PTAB series and AO series	3+	1 / Timed Written Exam

10.108.338.4	Aerial Bombs 3+	Specifics – Russia FWP	Submunitions	Aware	Aware of the range of Russian submunition fuzing	3+	1 / Timed Written Exam
10.108.339.4	Aerial Bombs 3+	Specifics – Russia FWP	Incendiary	Aware	Aware of the range of post WW2 incendiary aerial bombs including ZAB and Chinese Type 1	3+	1 / Timed Written Exam
10.108.340.4	Aerial Bombs 3+	Specifics – Russia FWP	Other	Aware	Aware of the range of other Russian aerials bombs including ZAB, KHAB, ODAB, AGITAB, FOTAB	3+	1 / Timed Written Exam
10.108.341.4	Aerial Bombs 3+	Specifics – Russia FWP	Fuzes – Impact	Aware	Aware of technical functioning of impact fuzes used with Russian high explosive bombs including AVU series, AMV series, AV1, AVPZ	3+	1 / Timed Written Exam
10.108.342.4	Aerial Bombs 3+	Specifics – Russia FWP	Fuzes – Time	Aware	Aware of the technical functioning of time fuzes used with Russian cluster bombs including ATK series	3+	1 / Timed Written Exam
10.108.352.4	Aerial Bombs 3+	Specifics – Russia FWP	Precision guided	Aware	Aware of the range of Russian precision aerial bombs including KAL-500 and KAB-1500 series	3+	1 / Timed Written Exam
10.109.345.4	Aerial Bombs 3+	Specifics – NATO	US HE	Aware	Aware of the range of modern US high explosive bombs. (Post 1945). Including M117, MK-81, MK-82, MK-83 and MK-84	3+	1 / Timed Written Exam

10.109.346.4	Aerial Bombs 3+	Specifics – NATO	US Fuzes electronic impact	Aware	Aware of the range of US electronic impact fuzes used with Mk-80 series. e.g. FMU-54	3+	1 / Timed Written Exam
10.109.347.4	Aerial Bombs 3+	Specifics – NATO	US Fuzes electro- mechanical	Aware	Aware of the range of US multimode electro-mechanical fuzes (proximity, impact and short delay) used with Mk-80 series. e.g. FMU-139, FMU-152	3+	1 / Timed Written Exam
10.109.348.4	Aerial Bombs 3+	Specifics – NATO	US Fuzes electronic delay	Aware	Aware of the range of US electronic delay fuzes used with Mk-80 series, BLU-109. e.g. FMU-143	3+	1 / Timed Written Exam
10.109.349.4	Aerial Bombs 3+	Specifics – NATO	Precision (JDAM)	Aware	Aware of the range of JDAM configurations including GBU-31 series, GBU-32 series, GBU-35, GBU-38 series and GBU-54	3+	1 / Timed Written Exam
10.109.350.4	Aerial Bombs 3+	Specifics – NATO	Precision Paveway	Aware	Aware of the range of Paveway precision bombs including Paveway I-IV	3+	1 / Timed Written Exam
10.109.351.4	Aerial Bombs 3+	Specifics – NATO	Collateral Damage Limiting	Aware	Aware of the range of collateral damage limiting aerial bombs including SDBs (GBU-39, GBU- 53) and aerial bombs with cement fills	3+	1 / Timed Written Exam
10.109.353.4	Aerial Bombs 3+	Specifics – NATO	US Cluster / Containers	Aware	Aware of the range of US aerial cluster bombs (non-dispenser)	3+	1 / Timed Written Exam

					including CBU-24, CBU-29, CBU-38, CBU-49, CBU-52, CBU-58, CBU-87, CBU-89, CBU-99, CBU-100		
10.109.354.4	Aerial Bombs 3+	Specifics – NATO	US Cluster / Containers	Aware	Aware of the range of US aerial cluster bomb dispensers (CCM definition) including CBU-2, CBU-14, CBU-25 and SUU-24	3+	1 / Timed Written Exam
10.109.355.4	Aerial Bombs 3+	Specifics – NATO	US Cluster / Containers	Aware	Aware of the range of US SMART aerial cluster bombs including CBU-103, CBU-104 and CBU-105	3+	1 / Timed Written Exam
10.109.356.4	Aerial Bombs 3+	Specifics – NATO	US Submunitions	Aware	Aware of the range of US submunitions including BLU-3, BLU-24, BLU-26, BLU-36, BLU-43, BLU-59, BLU-61, BLU-63, BLU-66, BLU-77, BLU-86	3+	1 / Timed Written Exam
10.109.357.4	Aerial Bombs 3+	Specifics – NATO	Spanish HE	Aware	Aware of the range of Spanish transverse fuzed BR and BNI aerial bombs	3+	1 / Timed Written Exam
10.110.1082.4	Aerial Bombs 3+	Specifics – Pre 1945	Japanese HE Pre-1944	Aware	Aware of range of Japanese WW2 aircraft bombs. E.g. Type 94. Type 99.	3+	1 / Timed Written Exam
10.110.1083.4	Aerial Bombs 3+	Specifics – Pre 1945	Japanese Aircraft Bomb Fuzes Pre-1944	Aware	Aware of range of Japanese WW2 aircraft bomb fuzes.	3+	1 / Timed Written Exam

10.110.343.4	Aerial Bombs 3+	Specifics – Pre 1945	US HE pre 1945	Aware	Aware of the range of US high explosive bombs up to 1945	3+	1 / Timed Written Exam
10.110.344.4	Aerial Bombs 3+	Specifics – Pre 1945	US Fuzes pre 1945	Aware	Aware of the range of fuzes for US high explosive bombs up to 1945 including AN M103, AN M105 and An M109	3+	1 / Timed Written Exam
10.110.359.4	Aerial Bombs 3+	Specifics – Pre 1945	German HE pre 1945	Aware	Aware of the range of German WWII transverse fuze arial bombs HE.	3+	1 / Timed Written Exam
10.110.360.4	Aerial Bombs 3+	Specifics – Pre 1945	German Fuzes pre 1945	Aware	Aware of the range of German WWII bomb fuzes	3+	1 / Timed Written Exam
10.110.361.4	Aerial Bombs 3+	Specifics – Pre 1945	UK HE pre 1945	Aware	Aware of the range of UK high explosive bombs up to 1945	3+	1 / Timed Written Exam
10.110.362.4	Aerial Bombs 3+	Specifics – Pre 1945	UK Fuzes pre 1945	Aware	Aware of the range of fuzes and pistols for UK high explosive bombs up to 1945	3+	1 / Timed Written Exam
10.110.363.4	Aerial Bombs 3+	Specifics – Pre 1945	WW2 Incendiary	Aware	Aware of the range of WW2 era incendiary bombs including UK, USA and German models.	3+	1 / Timed Written Exam
10.111.855.4	Aerial Bombs 3+	Generic Types	General Purpose	Identify	Be able to identify GP bombs, their common design attributes and NEQ charge ratios	3+	2 / Focused skill test
10.111.856.4	Aerial Bombs 3+	Generic Types	Containers	Identify	Be able to identify containers both guided and unguided and	3+	2 / Focused skill test

					estimate NEQ and residual hazard		
10.111.857.4	Aerial Bombs 3+	Generic Types	Incendiary	Identify	Be able to identify common incendiary bomb design features	3+	2 / Focused skill test
10.111.858.4	Aerial Bombs 3+	Generic Types	Medium & High Capacity	Identify	Be able to identify MC, HC bombs, their common design attributes and NEQ charge ratios	3+	2 / Focused skill test
10.111.859.4	Aerial Bombs 3+	Generic Types	Armour Piercing	Identify	Be able to identify AP, SAP and DP bombs, their common design attributes and NEQ charge ratios	3+	2 / Focused skill test
10.111.860.4	Aerial Bombs 3+	Generic Types	Signals & Pyro	Identify	Be able to identify pyrotechnic signals and markers, know their likely charge weights and fire hazards	3+	1 / Focused skill test
10.111.861.4	Aerial Bombs 3+	Generic Types	Identification	Identify	Use the following features to assist in identifying an air-dropped weapon: tail, shape, suspension, dimensions, markings, fuze location, fuze shape	3+	3 / Focused skill test
10.111.985.4	Aerial Bombs 3+	Generic Types	Electrical fuzes	Aware	Aware of use of capacitors in a number of modern bomb fuzes	3+	2 / Timed Written Exam

10.111.986.4	Aerial Bombs 3+	Generic Types	Electrical fuzes	Aware	Aware of soak period advisable when dealing with a number of bomb fuzes that contain electrical fuzing and capacitors	3+	3 / Timed Written Exam
10.115.358.4	Aerial Bombs 3+	Fuzes	Anti-handling	Understand	Understand and identify range of historical anti-handling devices used with all bomb fuzes. E.g. ZUS-40, M-123, Number 37 Long Delay Pistol	3+	2 / Timed Written Exam
10.115.364.4	Aerial Bombs 3+	Fuzes	Capacitors	Understand	Understand range of electrical or electro-mechanical aerial bombs fuzes utilizing capacitors and how discharge of potential from the capacitor affects decision to move the item	3+	1 / Timed Written Exam
10.115.406.4	Aerial Bombs 3+	Fuzes	Revision	Fuze revision	Revise principles of fuzing, drawing on experience of land ammunition. Understand how aerial bombs differ and the type of fuzing mechanisms that are required.	3+	2 / Timed Written Exam
10.115.862.4	Aerial Bombs 3+	Fuzes	Arming	Know	Know how air dropped bomb fuzes may be armed: vane, lanyard, electro-mechanical, powder train	3+	2 / Timed Written Exam

10.115.863.4	Aerial Bombs 3+	Fuzes	Impact, Graze / All ways acting	Understand	Understand basic designs for impact fuzes, graze / all ways acting functions	3+	2 / Timed Written Exam
10.115.864.4	Aerial Bombs 3+	Fuzes	Delay / SQ	Understand	Understand how delays are created following initial impact and basic designs including electronic delay	3+	2 / Timed Written Exam
10.115.973.4	Aerial Bombs 3+	Fuzes	Barometric Fuzes	Understand	Understand likely arming forces, describe arming cycle and know which force may trigger the fuze in its armed state	3+	1 / Visual/Oral
10.116.365.4	Aerial Bombs 3+	RSP Selection	Fuze Removal	Understand	Understand fuze removal techniques, either mechanical or explosively driven, such as cracker barrel, IGOL, de-armer etc.	3+	1 / Timed Written Exam
10.116.376.4	Aerial Bombs 3+	RSP Selection	Fuze Immunization	Understand	Understand how fuze immunisation techniques on mechanical fuzes can reduce risk, e.g. saline or gelling agent, benzene solution etc.	3+	1 / Timed Written Exam
10.116.377.4	Aerial Bombs 3+	RSP Selection	Mechanical Breakup	Understand	Understand the use of shaped charges to effect mechanical break up of a case and separate fuze and main fill	3+	1 / Timed Written Exam

10.116.381.4	Aerial Bombs 3+	RSP Selection	Case Entry	Understand	Understand range of techniques using abrasive cutting, linear cutting charges, or base plate removal techniques	3+	1 / Timed Written Exam
10.116.382.4	Aerial Bombs 3+	RSP Selection	Burn	Understand	Understand when HE fill can be burned, in what size of chunks and once removed from casing.	3+	1 / Timed Written Exam
10.116.383.4	Aerial Bombs 3+	RSP Selection	Deflagration	Understand	Understand use of pyrophoric shaped charges (e.g. magnesium cone) charge to impart a burn as part of case entry / mechanical break up / deflagration of fill	3+	1 / Timed Written Exam
10.116.384.4	Aerial Bombs 3+	RSP Selection	Low Order Techniques	Understand	Understand the range of low order techniques available to the operator and the need to consider high order at every stage.	3+	1 / Timed Written Exam
10.117.1071.4	Aerial Bombs 3+	RSP Conduct	Draft SOP	Write	Demonstrate ability to draft SOP or Technical Procedure on render safe and disposal of aerial bombs in a given area of operations	3+	4 / Timed Written Exam
10.117.366.4	Aerial Bombs 3+	RSP Conduct	De-armer	Prepare	Prepare de-armer with de-bulleted cartridge for use	3+	2 / Focused skill test

10.117.367.4	Aerial Bombs 3+	RSP Conduct	De-armer	Position	Position dearmers with flat, chiselled or forked projectile to remove relevant fuze systems	3+	1 / Focused skill test
10.117.368.4	Aerial Bombs 3+	RSP Conduct	Cracker barrel	Prepare	Prepare cracker barrel as alternative to de-armer for fuze removal	3+	2 / Focused skill test
10.117.369.4	Aerial Bombs 3+	RSP Conduct	Cracker barrel	Position	Position cracker barrel to remove relevant fuze systems	3+	1 / Focused skill test
10.117.371.4	Aerial Bombs 3+	RSP Conduct	IGOL	Aware	Aware of IGOL remote fuze removal technique on relevant fuzes particularly if bomb is in flammable environment	3+	1 / Focused skill test
10.117.372.4	Aerial Bombs 3+	RSP Conduct	Tape and Line	Prepare	Prepare Tape and Line fuze extraction technique	3+	2 / Focused skill test
10.117.373.4	Aerial Bombs 3+	RSP Conduct	Tape and Line	Position	Position Tape and Line on relevant fuzes and conduct remote pulling techniques	3+	1 / Focused skill test
10.117.378.4	Aerial Bombs 3+	RSP Conduct	Rocket wrench	Prepare	Prepare Rocket Wrench using de-bulleted cartridges for remote fuze removal	3+	2 / Focused skill test
10.117.379.4	Aerial Bombs 3+	RSP Conduct	Rocket wrench	Position	Position Rocket Wrench on relevant fuzes and initiate	3+	1 / Focused skill test
10.117.380.4	Aerial Bombs 3+	RSP Conduct	Safety	Understand	Understand and observe soak periods for all remote fuze	3+	1 / Focused skill test

					removal and low order techniques		
10.117.385.4	Aerial Bombs 3+	RSP Conduct	Cutting charges	Conduct	Conduct methods using linear cutting charges for case entry and mechanical break up and possible deflagration of HE aerial bombs	3+	2 / Focused skill test
10.117.387.4	Aerial Bombs 3+	RSP Conduct	Round Tom	Conduct	Conduct base plate removal using Round Tom charge.	3+	1 / Focused skill test
10.117.390.4	Aerial Bombs 3+	RSP Conduct	Safety	Identify	Identify secondary hazards during aerial bomb task conventional EOD task	3+	2 / Focused skill test
10.117.391.4	Aerial Bombs 3+	RSP Conduct	Scene Management	Conduct	Conduct task scene management for aerial bomb task conventional EOD task	3+	4 / Assessed live task
10.117.392.4	Aerial Bombs 3+	RSP Conduct	Threat Assessment	Conduct	Conduct rolling threat assessment for aerial bomb task conventional EOD task with particular attention to fuze state, charge size, and secondary hazards	3+	2 / Assessed live task
10.117.393.4	Aerial Bombs 3+	RSP Conduct	Neutralize	Conduct	Conduct neutralization, disarmament for aerial bomb task during conventional EOD task	3+	4 / Assessed live task

10.117.394.4	Aerial Bombs 3+	RSP Conduct	Low Order	Conduct	Conduct low order of aerial bomb task during conventional EOD task	3+	2 / Assessed live task
10.117.395.4	Aerial Bombs 3+	RSP Conduct	High Order	Conduct	Conduct high order of aerial bomb task during conventional EOD task	3+	2 / Assessed live task
10.124.407.4	Aerial Bombs 3+	Flight	Flight Characteristics	Flight	Understand flight characteristics of different types of bombs, retarders, guided, containers	3+	2 / Timed Written Exam
10.220.590.4	Aerial Bombs 3+	Access	Move bombs from site	Supervise	Supervise transport by road to move neutralised/disarmed aerial bomb to suitable disposal location	3+	1 / Visual/Oral
10.220.591.4	Aerial Bombs 3+	Access	Move bombs on site	Supervise	Supervise lifting equipment (plant) to move neutralised/disarmed aerial bomb from shaft/hole	3+	1 / Visual/Oral
10.220.592.4	Aerial Bombs 3+	Access	Shafting and Shoring	Sustain access	Sustain safe access to buried aerial bombs by shafting and shoring access hole	3+	4 / Visual/Oral
10.220.593.4	Aerial Bombs 3+	Access	Plant / Mech	Gain access	Use mechanical plant with EOD banksman to gain access to buried aerial bombs	3+	1 / Visual/Oral
10.220.984.4	Aerial Bombs 3+	Access	Plant / Mech	Assess	Assess need or use of armoured plant, for excavation to deep	3+	1 / Timed Written Exam

					buried bombs, in relation to potential fuzing		
10.221.594.4	Aerial Bombs 3+	Detection	Indicators	Know evidence indicators	Know evidence indicators for the presence of aerial bombs including entry holes, displaced sections (fins etc.)	3+	1 / Visual/Oral
10.221.595.4	Aerial Bombs 3+	Detection	Detectors	Detect aerial bombs	Use locators/magnetometers to detect buried large ferrous objects	3+	1 / Visual/Oral
10.222.596.4	Aerial Bombs 3+	Remediation	Post Task Remediation: Plan	Plan	Plan remediation post task to return area to normal state after EOD action	3+	1 / Visual/Oral
10.222.907.4	Aerial Bombs 3+	Remediation	Post Task Remediation: Conduct	Conduct	Conduct remediation post task to return area to normal state after EOD action	3+	1 / Visual/Oral
Guided Weapons 3+							
11.150.450.4	Guided Weapons 3+	Warhead Design	Missiles vs Hittiles	Understand	Understand the different approaches to targeting aircraft and how this affects warhead design	3+	2 / Timed Written Exam
11.150.451.4	Guided Weapons 3+	Warhead Design	HEAT	Understand	Understand the use shaped charge in missiles and how stand-off is achieved	3+	2 / Timed Written Exam

11.150.452.4	Guided Weapons 3+	Warhead Design	Tandem Shaped	Understand	Understand the requirement for tandem shaped charges to attack armour with a layer of ERA	3+	2 / Timed Written Exam
11.150.454.4	Guided Weapons 3+	Warhead Design	Fragmentation	Understand	Understand how expanding rod fragmentation warheads are designed to attack aircraft	3+	1 / Timed Written Exam
11.150.455.4	Guided Weapons 3+	Warhead Design	Low NEQ	Understand	Understand how low NEQ warheads can be effective against air targets	3+	1 / Timed Written Exam
11.150.488.4	Guided Weapons 3+	Warhead Design	Explosive composition	Understand	Understand the requirements for high grade explosive composition in missile warheads and the balance between range and effectiveness	3+	4 / Timed Written Exam
11.150.806.4	Guided Weapons 3+	Warhead Design	Warhead material	Understand	Understand use of heavy metals in GW fragmentation casings including DU and Tungsten	3+	1 / Timed Written Exam
11.150.807.4	Guided Weapons 3+	Warhead Design	Detonator types	Understand	Understand use of EFIs/slapper detonators as a development from EBD in modern GW	3+	1 / Timed Written Exam
11.151.456.4	Guided Weapons 3+	Launch Method	Rails	Recognise	Recognise rail launch systems and understand how these are loaded	3+	2 / Timed Written Exam

11.151.457.4	Guided Weapons 3+	Launch Method	Tube	Recognise	Recognise tube launched systems, and understand how these are loaded.	3+	4 / Timed Written Exam
11.151.458.4	Guided Weapons 3+	Launch Method	Pylon	Recognise	Recognise common pylon mounting systems for NATO and FSU	3+	2 / Timed Written Exam
11.151.652.4	Guided Weapons 3+	Launch Method	Sequence	Know	Know a generic sequence of firing that covers power up, guidance, launch, boost, sustain and functioning of the warhead. Understand the implications of this sequence in assessing UXO	3+	8 / Timed Written Exam
11.152.459.4	Guided Weapons 3+	Propulsion Systems	Initiation	Understand	Understand how propulsion systems are initiated in a guided weapon	3+	1 / Timed Written Exam
11.152.460.4	Guided Weapons 3+	Propulsion Systems	Boost, sustain	Understand	Understand the stages of flight of a weapon and how its launch platform will determine the likely motor sequence e.g. launch motor ABOL, sustain fires at a safe distance from MANPAD	3+	2 / Timed Written Exam
11.152.461.4	Guided Weapons 3+	Propulsion Systems	Solid grain : Burn	Understand	Understand the geometry of solid grain rocket motors and that a constant burn rate is the most common but that there are reasons for other characteristics	3+	4 / Timed Written Exam

11.152.462.4	Guided Weapons 3+	Propulsion Systems	Liquid fuel	Know	Know common liquid fuel weapons in circulation (e.g.IRFNA) and what the issues involved with tanking / de-tanking are	3+	4 / Timed Written Exam
11.152.801.4	Guided Weapons 3+	Propulsion Systems	Solid grain: Hazards	Understand	Understand risk from GW based propellant combustion where ammonium perchlorate is used as an oxidiser. E.g. Hydrochloric Acid (HCl)	3+	1 / Timed Written Exam
11.153.463.4	Guided Weapons 3+	Fuzing	Proximity	Understand	Understand how the Doppler effect is used to measure relative velocity and how radar measures distance, and how weapons with proximity fuzing are likely to be fragmentation warheads	3+	2 / Timed Written Exam
11.153.464.4	Guided Weapons 3+	Fuzing	Impact	Understand	Understand impact fuze operation including graze, piezo-electric and other electronic impact sensors	3+	4 / Timed Written Exam
11.154.465.4	Guided Weapons 3+	Safety & Arming Unit	Safety features	Understand	Understand the operation of various guided weapons safety and arming units, the various safety mechanisms, both mechanical and electrical	3+	8 / Timed Written Exam

11.154.466.4	Guided Weapons 3+	Safety & Arming Unit	Detonator types	Understand	Understand the operation of a range of detonator types found in guided weapons and why they are employed, e.g. warhead fill, design	3+	2 / Timed Written Exam
11.154.802.4	Guided Weapons 3+	Safety & Arming Unit	Identify & Assess	Identify	Be able to identify a range of SAU from different platforms and use this knowledge to assess and plan RSP	3+	4 / Timed Written Exam
11.155.467.4	Guided Weapons 3+	Guidance & Control	Main categories	Understand	Understand the generic guidance methods, how they simplify the operator's workload and training burden. How they enable separation of guidance from launch site	3+	4 / Timed Written Exam
11.155.468.4	Guided Weapons 3+	Guidance & Control	Infra Red	Know	Know wavelengths of Near and Far IR, how these relate to jet engines and body heat	3+	2 / Timed Written Exam
11.155.469.4	Guided Weapons 3+	Guidance & Control	Wire Guided	Understand	Understand how control signals are passed down a guidance wire, where spools are located on the weapon	3+	1 / Timed Written Exam
11.155.470.4	Guided Weapons 3+	Guidance & Control	Beam riding	Understand	Understand the beam riding guidance method and what the beam riding antennas / receivers may look like (RF, Laser)	3+	2 / Timed Written Exam

11.155.471.4	Guided Weapons 3+	Guidance & Control	Antennas	Recognise	Recognise a variety of antenna types and configurations found in common types of radio-controlled weapons	3+	2 / Timed Written Exam
11.155.653.4	Guided Weapons 3+	Guidance & Control	Homing	Know	Know types of homing guidance including Active Homing, Semi Active Homing, Passive homing, retransmission homing and Proportional Guidance	3+	4 / Timed Written Exam
11.156.472.4	Guided Weapons 3+	Specific Common ATGW Models	US	Know	Know common US ATGW e.g. Javelin, TOW, Hellfire	3+	2 / Timed Written Exam
11.156.474.4	Guided Weapons 3+	Specific Common ATGW Models	Russia	Know	Know common Russian / FSU ATGW, e.g. Sagger, Spigot, Spandrel, Spriggan (Kornet)	3+	2 / Timed Written Exam
11.156.475.4	Guided Weapons 3+	Specific Common ATGW Models	Other	Know	Know common other ATGW, e.g. Hot, Milan, Spike, NLAW	3+	1 / Timed Written Exam
11.157.476.4	Guided Weapons 3+	Weapon roles	Air – Surface	Explain	Be able to explain the generic makeup and characteristics of Air-Surface missiles	3+	4 / Oral
11.157.477.4	Guided Weapons 3+	Weapon roles	Surface – Air	Explain	Be able to explain the generic makeup and characteristics of Surface-Air missiles	3+	4 / Oral
11.157.478.4	Guided Weapons 3+	Weapon roles	Air – Air	Explain	Be able to explain the generic makeup and characteristics of Air-Air missiles	3+	4 / Oral

11.157.479.4	Guided Weapons 3+	Weapon roles	Surface – Surface & Naval	Explain	Be able to explain the generic makeup and characteristics of Surface-Surface and Naval missiles	3+	4 / Oral
11.158.480.4	Guided Weapons 3+	Other Hazards	Gas generators	Understand	Understand how a gas generator works and the likely uses of gas in the weapon, e.g. cooling, actuators in guidance operations	3+	2 / Timed Written Exam
11.158.481.4	Guided Weapons 3+	Other Hazards	Toxic materials	Understand	Understand that a number of pyrotechnics, gases, seeker assemblies and so on contain harmful toxic components. Design decisions of performance vs environmental impact	3+	1 / Timed Written Exam
11.158.482.4	Guided Weapons 3+	Other Hazards	Thermal Batteries	Understand	Understand the operation of a thermal battery, their likely operational life and shelf life. Common implementations and what they look like e.g. SA-7	3+	2 / Timed Written Exam
11.159.1072.4	Guided Weapons 3+	Render Safe Procedures	Draft SOP	Write	Demonstrate ability to draft SOP or Technical Procedure on render safe and disposal of guided weapons in a given area of operations	3+	4 / Timed Written Exam

11.159.483.4	Guided Weapons 3+	Render Safe Procedures	On rail	Assess	Assess on-rail weapon to determine if it has received a launch signal, know options for disposal based on this assessment	3+	8 / Assessed Timed Simulated Task
11.159.484.4	Guided Weapons 3+	Render Safe Procedures	In tube	Assess	Assess in-tube weapon to determine if it has received a launch signal, know options for disposal based on this assessment	3+	8 / Assessed Timed Simulated Task
11.159.485.4	Guided Weapons 3+	Render Safe Procedures	Specific High Order RSPs	Know how to access	Be familiar with weapon-specific high order RSPs for very common systems such as the SA-2 Guideline for fired and unfired states which are optimised for safety and low environmental impact	3+	8 / Assessed Timed Simulated Task
11.159.486.4	Guided Weapons 3+	Render Safe Procedures	Generic High Order	Design generic RSP	Able to apply knowledge of a wide range of real weapon systems to the design of an RSP for an unidentified weapon	3+	4 / Assessed Timed Simulated Task
11.160.487.4	Guided Weapons 3+	Environmental Considerations	Chemicals, toxicity	Understand	Understand the total toxic risk of a weapon system, from batteries to liquid propellant, gases and sensor components	3+	2 / Timed Written Exam

11.161.489.4	Guided Weapons 3+	Launch Platforms	Vehicle Mounted, Towed	Understand	Understand the advantages of vehicle mounted systems, how command and tracking may be separated and what some of these vehicles look like	3+	3 / Timed Written Exam
11.161.650.4	Guided Weapons 3+	Launch Platforms	Static	Recognise	Recognise static installations and deduce the components of the system	3+	2 / Timed Written Exam
11.161.651.4	Guided Weapons 3+	Launch Platforms	Aircraft	Understand	Understand aircraft / naval launch pylons / tubes and associated release mechanisms	3+	2 / Timed Written Exam
11.161.974.4	Guided Weapons 3+	Launch Platforms	MANPADS	Understand	Understand the generic makeup of a human operated missile system	3+	2 / Timed Written Exam
11.300.803.4	Guided Weapons 3+	Specific Common MANPAD Models	MANPADS	Know	Know common MANPADs, e.g. Stinger, SA-3 Strela, SA-16 Igla	3+	1 / Timed Written Exam
11.301.804.4	Guided Weapons 3+	Specific Common SAM / AAM Models	SAM	Know	Know common SAMs, e.g. SA-2, SA-3, SA-6, SA-8, Roland, Rapier	3+	1 / Timed Written Exam
11.301.805.4	Guided Weapons 3+	Specific Common SAM / AAM Models	AAM	Know	Know common AAMs, e.g. AIM-9, AA-8 APHID	3+	1 / Timed Written Exam
11.302.808.4	Guided Weapons 3+	Markings	GW – all	Know markings	Understand generic GW marking systems. E.g. Russian 9M prefixes	3+	2 / Timed Written Exam

11.303.812.4	Guided Weapons 3+	Lessons Identified	Accidents	Know	Know previous accidents dealing with GW and understand how to mitigate the risks these involved	3+	1 / Visual Oral
12. Chemical Ordnance (Basic) 3+							
12.100.310.4	Chemical Ordnance (Basic) 3+	Chemical Munitions	Air Dropped	Understand	Know the main chemical ADW known to have been used including improvised barrel bombs.	3+	2 / Timed Written Exam
12.100.311.4	Chemical Ordnance (Basic) 3+	Chemical Munitions	Rockets	Understand	Know the main chemical Rockets known to have been used including improvised rockets.	3+	2 / Timed Written Exam
12.100.312.4	Chemical Ordnance (Basic) 3+	Chemical Munitions	Artillery	Understand	Know the main chemical artillery projectiles known to have been used.	3+	2 / Timed Written Exam
12.100.313.4	Chemical Ordnance (Basic) 3+	Chemical Munitions	Markings: Modern	Aware	Be aware of main modern chemical munition markings for NATO, Russian, and Chinese ordnance.	3+	2 / Timed Written Exam
12.100.314.4	Chemical Ordnance (Basic) 3+	Chemical Munitions	Markings: Historic	Aware	Be aware of main historical chemical munition markings for USA, France, Italy, Germany, UK, Russian, and Japanese ordnance.	3+	2 / Timed Written Exam

12.102.296.4	Chemical Ordnance (Basic) 3+	Team & Public Safety	Aware of EHA	Awareness	Aware of explosive hazard area and downwind hazard area	3+	1 / Visual/Oral
12.102.297.4	Chemical Ordnance (Basic) 3+	Team & Public Safety	Calculate EHA	Calculate	Calculate explosive hazard area and downwind hazard area and arrange cordon with appropriate agencies	3+	8 / Focused skill test
12.313.894.4	Chemical Ordnance (Basic) 3+	Chemical Warfare Compositions	CWC	Awareness	Understand how the CWC applies to chemical warfare compositions	3+	2 / Timed Written Exam
12.313.895.4	Chemical Ordnance (Basic) 3+	Chemical Warfare Compositions	Toxic Effects	Understand	Understand the toxic effects that various chemical warfare composition groups have on the human body	3+	2 / Timed Written Exam
12.96.290.4	Chemical Ordnance (Basic) 3+	Disposal Options	Leak Seal Package	Conduct	Select appropriate option from: Leak seal and packaging, case burst and decon-tank, or high order in extremis	3+	8 / Focused skill test
12.96.298.4	Chemical Ordnance (Basic) 3+	Disposal Options	Case Entry	Conduct	Be able to conduct remote case entry and sampling using suitable equipment (e.g.MONICA+MATS) on suspect munitions	3+	16 / Focused skill test
12.96.299.4	Chemical Ordnance (Basic) 3+	Disposal Options	Incineration	Conduct	Understand and be able to conduct basic incineration techniques.	3+	4 / Focused skill test

12.96.300.4	Chemical Ordnance (Basic) 3+	Disposal Options	Burial	Conduct	Understand historical technique of burial of sealed packages of chemical waste post incineration. Understand ongoing hazards associated with such techniques	3+	2 / Focused skill test
12.96.624.4	Chemical Ordnance (Basic) 3+	Disposal Options	High Order	Conduct	Select appropriate option from: case burst and decon-tank, or high order in extremis and with written consent of NMAA, due to high environmental impact.	3+	2 / Assessed live task
12.96.627.4	Chemical Ordnance (Basic) 3+	Disposal Options	Neutralisation	Understand disposal	Understand industrial neutralisation techniques. E.g. Use of water and sodium hydroxide	3+	1 / Timed Written Exam
12.97.291.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Chemical: Don and decon	Don and decon	Don PPE, conduct hot line decon worker role	3+	1 / Assessed live task
12.97.292.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Chemical: Hotline, comms, medevac	Run hotline	Run decon hotline, comms and medevac	3+	1 / Assessed live task
12.97.293.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Chemical: Dress and check	Dress and check	Dress and check self to proceed in to contaminated area and team readiness to decon	3+	1 / Assessed live task

12.97.315.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Bio: Don and decon	Don and decon	Don PPE, conduct hot line decon worker role	3+	1 / Focused skill test
12.97.316.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Bio: Hotline, comms, medevac	Run hotline	Run decon hotline, comms and medevac	3+	1 / Assessed live task
12.97.317.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Bio: Dress and check	Dress and check	Dress and check self to proceed in to contaminated area and and team readiness to decon	3+	2 / Focused skill test
12.97.629.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	Commerical options	PPE	Know and understand levels of chemical protection of different commercially available suits. I.e. Levels A,B,C,D (USA) or Types 1-6 (Europe). Understand difference between gas/vapour protection and splash protection	3+	2 / Assessed live task
12.97.630.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	PPE & Operator Safety	PPE	Select correct PPE in accordance with threat assessment including level of respirator, and level of protective suit e.g. Level C splash suit or Level A HAZMAT suit	3+	1 / Assessed live task
12.97.631.4	Chemical Ordnance (Basic) 3+	PPE & Operator Safety	PPE & Operator Safety	PPE	Use proficiently full-facepiece Self-Contained Breathing Apparatus (SCBA) in	3+	4 / Assessed live task

					conjunction with Level A/Type 1 HAZMAT suit		
12.98.294.4	Chemical Ordnance (Basic) 3+	Recce and ID	Conduct Recce	Recce	Conduct chemical recce to identify munition and agent contained	3+	8 / Focused skill test
12.98.295.4	Chemical Ordnance (Basic) 3+	Recce and ID	Use Chem Agent Detectors	Use	Be able to competently use a range of chemical agent detectors including CAM, ICAM, MCAD	3+	8 / Focused skill test
12.99.301.4	Chemical Ordnance (Basic) 3+	Chemical theory	Blood Agents	Understand	Know key blood agents including Hydrogen Cyanide (AC), Cyanogen Chloride (CK), Arsine (SA) and the probable threat of these agents.	3+	2 / Timed Written Exam
12.99.302.4	Chemical Ordnance (Basic) 3+	Chemical theory	Blister Agents	Understand	Know key blister agents (vessicants) including Distilled Sulphur Mustard (HD), HN, Lewisite (L), HL, ED, MD, PD, Phosgen Oxine (CX) and the probable threat of these agents.	3+	2 / Timed Written Exam
12.99.303.4	Chemical Ordnance (Basic) 3+	Chemical theory	Nerve Agents	Understand	Know key nerve agents including G-Agents, V-Agents, and Carbamates and the probable threat of these agents.	3+	2 / Timed Written Exam

12.99.304.4	Chemical Ordnance (Basic) 3+	Chemical theory	Choking Agents	Understand	Know the key choking/pulmonary agents including Chlorine gas (cl), Phosgene (CG), Diphosgene (DP), Chloropicrin (PS)	3+	2 / Timed Written Exam
12.99.305.4	Chemical Ordnance (Basic) 3+	Chemical theory	Vomiting Agents	Understand	Know the key vomiting agents including Adamsite, Chloropicrin, Diphenylchlorarsine, Diphenylcyanoarsine	3+	2 / Timed Written Exam
12.99.306.4	Chemical Ordnance (Basic) 3+	Chemical theory	Incapacitating Agents	Understand	Know the key incapacitating agents including BZ and the probable associated threat	3+	1 / Timed Written Exam
12.99.307.4	Chemical Ordnance (Basic) 3+	Chemical theory	Riot-Control Agents	Understand	Know the key non-lethal lachrymatory agents including Pepper Spray, CS gas, CN gas and CR gas and the probable associated threat.	3+	2 / Timed Written Exam
12.99.308.4	Chemical Ordnance (Basic) 3+	Chemical theory	Key Decontaminant Agents	Understand	Understand function of key decontaminant agents including Calcium Hypochlorite (HTH), Super Tropical Bleach (STB), Caustic Soda, Sodium Hypochlorite (household bleach).	3+	2 / Timed Written Exam

12.99.309.4	Chemical Ordnance (Basic) 3+	Chemical theory	Other Decontaminant Agents	Use	Be able to use a range of decontaminant agents appropriately.	3+	3 / Focused skill test
12.99.620.4	Chemical Ordnance (Basic) 3+	Chemical theory	Choking Agents	Understand	Know improvised use of chlorine based chemicals in munitions	3+	2 / Timed Written Exam
12.99.621.4	Chemical Ordnance (Basic) 3+	Chemical theory	Decontaminant Agents	Understand	Understand the inhalation, ingestion, skin contact, eye contact, chronic exposure (including aggravating pre-existing conditions) risks in using the range of decontaminant agents.	3+	2 / Timed Written Exam
12.99.622.4	Chemical Ordnance (Basic) 3+	Chemical theory	Industrial hazards	Understand	Be aware of the range of industrial chemical hazards	3+	2 / Timed Written Exam
13. AFV Clearance 3+							
13.103.318.4	AFV Clearance 3+	Battery Acid	Acid Hazard	Awareness	Aware of hazard of battery acid associated with AFV	3+	1 / Visual/Oral
13.103.320.4	AFV Clearance 3+	Battery Acid	Mitigations available	Mitigate	Deploy appropriate mitigations against battery acid during manual approaches and RSP	3+	1 / Visual/Oral
13.103.971.4	AFV Clearance 3+	Battery Acid	Identify Liquids	Identify	Be able to make an informed assessment of unknown liquids inside AFV	3+	1 / Focused skill test

13.104.322.4	AFV Clearance 3+	Radioactive sources	Detection	Detect	Prepare and use dosimeter (in PPE) or GM tube to check for radioactive substances	3+	1 / Focused skill test
13.104.323.4	AFV Clearance 3+	Radioactive sources	Mitigations	Mitigate	Deploy mitigations during RSP to minimise interaction with radioactive source and arrange for specialist disposal	3+	1 / Focused skill test
13.104.972.4	AFV Clearance 3+	Radioactive sources	Sources	Awareness	Aware of hazard of radioactive sources other than DU dust	3+	1 / Visual/Oral
13.105.324.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Fuzes	Fuzes	Assess arming state of tank ammunition fuzes thrown from vehicle, potentially by means of kick out from a high order.	3+	1 / Visual/Oral
13.105.325.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Identify ammunition	Identify	Identify ammunition inside AFV by model. Identify potential hazards.	3+	2 / Visual/Written
13.105.326.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Assess ammunition	Assess	Assess ammunition inside AFV and determine whether it is safe to handle	3+	4 / Visual/Oral
13.105.536.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Assess propellant	Assess	Assess bagged propellant charges, potentially in sealed lockers, and determine whether it is safe to handle	3+	1 / Visual/Oral

13.105.537.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Assess ERA	Assess	Assess ERA and determine if it is safe to remove	3+	1 / Visual/Oral
13.105.538.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Assess turret	Assess	Assess ammunition inside AFV turret and determine whether it is safe to handle if fuzing is damaged	3+	2 / Visual/Written
13.105.906.4	AFV Clearance 3+	Unstable ammunition after kinetic event	Awareness	Awareness	Aware that ammunition inside AFV may be unstable and have undergone an explosive event and therefore potentially is UXO rather than AXO if damaged.	3+	1 / Visual/Oral
13.106.328.4	AFV Clearance 3+	AFV knowledge	Soviet	Know	Know key Soviet/Russian platforms including weapons systems associated with main models. E.g. T72 and 125mm ammunition, BM21, Grad missiles etc.	3+	4 / Timed Written Exam
13.106.329.4	AFV Clearance 3+	AFV knowledge	Chinese	Know	Know key Chinese platforms including weapons systems associated with main models. E.g. Type 99 and 125mm ammunition etc.	3+	2 / Timed Written Exam
13.106.330.4	AFV Clearance 3+	AFV knowledge	NATO	Know	Know key NATO platforms including weapons systems associated with main	3+	4 / Timed Written Exam

					models. E.g. M1 Abrams and 120mm smoothbore		
13.121.321.4	AFV Clearance 3+	Fuel	POL	Aware	Aware of POL (Petrol, Oil and Lubricants) hazard associated with AFV	3+	1 / Visual/Oral
13.121.404.4	AFV Clearance 3+	Fuel	Mitigate fuel hazard	Remove	Be able to safely remove fuel hazard, or consider as part of danger area if EOD action is required prior to fuel removal	3+	1 / Focused skill test
13.122.405.4	AFV Clearance 3+	DU	PPE & Operator Safety	Use	Use mask or respirator and forensic suit competently to mitigate against DU dust hazard	3+	1 / Focused skill test
13.125.410.4	AFV Clearance 3+	Launchers	Make launcher safe	Make safe	Isolate launchers electrically, check status of rounds / missiles still in place	3+	8 / Focused skill test
13.126.411.4	AFV Clearance 3+	Armaments	Unload weapons	Unload	Unload and make safe all armaments on board whilst ensuring barrel direction is safe or cordoned.	3+	8 / Focused skill test
13.126.865.4	AFV Clearance 3+	Armaments	Smooth / Rifled	Understand	Understand the differences of smoothbore and rifled armaments and the relevant ammunition design implications	3+	2 / Timed Written Exam
13.126.866.4	AFV Clearance 3+	Armaments	Loading Systems	Understand	Understand the differences in the way Breach Loading and Quantity Fixed ammunition is	3+	2 / Timed Written Exam

					loaded and the implications for ammunition storage possibilities on board the FV		
13.200.510.4	AFV Clearance 3+	Booby Traps	Clearance	Conduct	Be able to clear an AFV of booby traps in a deliberate EOD task	3+	8 / Assessed Timed Simulated Task
13.200.511.4	AFV Clearance 3+	Booby Traps	Semi-Remote	Conduct	Be able to set up complex semi-remote movement of items using hook and line equipment	3+	8 / Assessed Timed Simulated Task
13.200.512.4	AFV Clearance 3+	Booby Traps	Methods	Know	Understand probable means of booby trapping an abandoned AFV	3+	2 / Visual/Oral
13.201.513.4	AFV Clearance 3+	Clearance of Human Remains	Legal Framework	Process	Be able to process human remains in a ways consistent with national medico-legal framework	3+	1 / Visual/Oral
13.201.514.4	AFV Clearance 3+	Clearance of Human Remains	Aware of bio hazards	Aware	Be aware of bio hazards associated with human remains. E.g. Pathogens, viruses and bacteria found in bodily fluids including blood.	3+	1 / Visual/Oral
13.201.515.4	AFV Clearance 3+	Clearance of Human Remains	Consult	Consult	Consult with relevant national authorities, including religious authorities, on appropriate ways to recover human remains from AFV	3+	1 / Visual/Oral

13.201.516.4	AFV Clearance 3+	Clearance of Human Remains	Maintain dignity	Maintain dignity	Supervise the team task to remove human remains in a culturally appropriate way	3+	1 / Visual/Oral
13.201.517.4	AFV Clearance 3+	Clearance of Human Remains	PPE	Use	Use appropriate PPE (HAZMAT Level B) when dealing with human remains founds within AFVs	3+	1 / Visual/Oral
13.202.518.4	AFV Clearance 3+	Task Management	Brief	Brief	Brief AFV clearance plan to team so that all are aware of task risks and roles	3+	4 / Assessed Timed Simulated Task
13.202.519.4	AFV Clearance 3+	Task Management	Lead	Lead	Conduct AFV clearance as lead EOD operator systemically disposing of all potential EO threats	3+	4 / Assessed Timed Simulated Task
13.202.520.4	AFV Clearance 3+	Task Management	Threat Assessment	Assess	Conduct comprehensive threat assessment for clearance of AFV and the surrounding area in multiple scenarios	3+	4 / Assessed Timed Simulated Task
13.202.521.4	AFV Clearance 3+	Task Management	Handover	Handover	Conduct handover of cleared AFV to other agencies with full brief as to any ongoing risks.	3+	1 / Assessed Timed Simulated Task
13.202.522.4	AFV Clearance 3+	Task Management	Plan Contingency	Plan	Plan contingency should lead EOD operator become injured during AFV clearance.	3+	4 / Assessed Timed Simulated Task

13.202.523.4	AFV Clearance 3+	Task Management	Complex task	Plan	Plan multi-phase EOD clearance task of an AFV and the surrounding area in accordance with threat assessment.	3+	4 / Assessed Timed Simulated Task
13.202.524.4	AFV Clearance 3+	Task Management	Write SOPs	Write	Write SOP chapter detailing how an EOD team will search and clear an AFV.	3+	4 / Timed Written Exam
13.203.331.4	AFV Clearance 3+	EO knowledge	Kinetic	Know	Know specific kinetic ammunition that contains potentially toxic material. e.g. L23A1 APFSDS, L27A1 APFSDS, M829 APFSDS-T	3+	8 / Timed Written Exam
13.203.332.4	AFV Clearance 3+	EO knowledge	DU	Know	Know various evidence indicators of DU ammunition	3+	2 / Timed Written Exam
13.203.333.4	AFV Clearance 3+	EO knowledge	HMTA	Know	Know various evidence indicators of HMTA ammunition	3+	3 / Timed Written Exam
13.203.334.4	AFV Clearance 3+	EO knowledge	APHE-T	Know	Know various types of APHE-T and requirement for disposal separate from other ammunition	3+	1 / Timed Written Exam
13.203.525.4	AFV Clearance 3+	EO knowledge	APC/APBC/APC BC	Know	Know range of APC/APBC/APCBC tank and anti-tank ammunition	3+	1 / Timed Written Exam
13.203.526.4	AFV Clearance 3+	EO knowledge	APFSDS	Know	Know range of APFSDS tank ammunition	3+	1 / Timed Written Exam

13.203.527.4	AFV Clearance 3+	EO knowledge	APHE	Know	Know range of APHE tank and anti-tank ammunition	3+	1 / Timed Written Exam
13.203.528.4	AFV Clearance 3+	EO knowledge	HESH	Know	Know range of HESH/HE-P tank and anti-tank ammunition	3+	1 / Timed Written Exam
13.203.529.4	AFV Clearance 3+	EO knowledge	HVAP	Know	Know range of HVAP/APCR tank and anti-tank ammunition	3+	1 / Timed Written Exam
13.203.530.4	AFV Clearance 3+	EO knowledge	Bar Armour	Know	Know the effect of bar armour on common HEAT rocket fuzing systems	3+	1 / Timed Written Exam
13.203.531.4	AFV Clearance 3+	EO knowledge	NATO ATGW	Know	Know the range of ATGW NATO missiles.	3+	1 / Timed Written Exam
13.203.532.4	AFV Clearance 3+	EO knowledge	ATGW Russian Chinese	Know	Know the range of ATGW Russian/Chinese missiles.	3+	1 / Timed Written Exam
13.203.533.4	AFV Clearance 3+	EO knowledge	HEAT	Know	Know the range of HEAT tank and anti-tank ammunition	3+	1 / Timed Written Exam
13.203.534.4	AFV Clearance 3+	EO knowledge	Shoulder HEAT NATO	Know	Know the range of shoulder launched NATO HEAT rockets.	3+	1 / Timed Written Exam
13.203.535.4	AFV Clearance 3+	EO knowledge	Shoulder HEAT Ru/Chi/Bu	Know	Know the range of shoulder launched Russian/Chinese/Bulgarian/Serbian HEAT rockets.	3+	1 / Timed Written Exam
13.203.934.4	AFV Clearance 3+	EO knowledge	Evidence Interpretation	Understand	Understand indicators of likely EO used on an AFV. E.g. messy entry, clean exit possible	3+	1 / Visual/Oral

					indicator of sub-calibre armour piercing projectiles such as APFSDS. Indicators of shaped charge jet entry into AFV hull etc.		
13.204.975.4	AFV Clearance 3+	IMAS Knowledge	Standards	Know	Know main aspects of TN 09.30/01 EOD Clearance of Armoured Fighting Vehicles	3+	4 / Timed Written Exam
13.323.964.4	AFV Clearance 3+	Clearance of radioactive/toxic hazards	DU/HMTA	Conduct	Clear DU related hazards in accordance with TN 09.30/02	3+	2 / Timed Written Exam
13.323.965.4	AFV Clearance 3+	Clearance of radioactive/toxic hazards	DU/HMTA	Injuries	Aware of hazards of DU or HMTA splinters puncturing skin	3+	1 / Timed Written Exam
13.323.966.4	AFV Clearance 3+	Clearance of radioactive/toxic hazards	DU/HMTA	High Order	Aware of risk of high order of DU or HMTA ammunition	3+	1 / Timed Written Exam

Amendment record

Management of amendments

The T&EP series of protocols are subject to formal review on a three-yearly basis; however this does not preclude amendments being made within these three-year periods for reasons of operational safety and efficiency or for editorial purposes.

As amendments are made to this document they will be given a number, and the date and general details of the amendment shown in the table below. The amendment will also be shown on the cover page of the document by the inclusion under the edition date of the phrase *'incorporating amendment number(s) 1 etc.'*

As the formal reviews are completed new editions may be issued. Amendments up to the date of the new edition will be incorporated into the new edition and the amendment record table cleared. Recording of amendments will then start again until a further review is carried out.

The most recently amended version will be posted on the IMAS website at www.mineactionstandards.org.

Number	Date	Amendment Details
1	22/02/2022	<ul style="list-style-type: none"> - Sections 1-9 aligned to TEP 09.31/01/2019 - Annex B – Competencies rewritten and updated.