

**Weapons Division Training & Development
Post Course Test – Range Worker**

The Safe Management of the Disposal of Explosives

The definition of explosives, and the classification of explosives into Divisions and Compatibility Groups

Question	Answers	
1. What is the definition of an explosion?	A	The violent expansion of gaseous matter
	B	A physical breakdown of chemicals
	C	A mass detonation
	D	An change from solid to gas by burning

Question	Answers	
2. What is the definition of Hazard Type 1? <i>Explosives which, as a result of any affect of, the conditions of its storage or process of manufacture, has a ...</i>	A	...hazard when unboxed
	B	...serious projection hazard
	C	...is safe when in storage
	D	...mass explosion hazard

Question	Answers	
3. What does the letter c refer to on this label? 	A	Hazard type
	B	Hazard classification code
	C	Compatibility Group
	D	Net Explosive Quantity (NEQ) type C

Question	Answers	
4. What is the definition of an explosive article?	A	Means an article containing one safety device
	B	Means an article containing one or more explosive substances
	C	Means an article capable of a chemical reaction
	D	Means an article which is safe to transport boxed

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The categorisation of explosives by their function

Question	Answers	
5. When unpackaged how are explosives categorised by their function, by?	A	Size and shape
	B	Net Explosive Quantity (NEQ)
	C	Armour piercing, blast, fragmentation
	D	Low explosives , primary and secondary high explosives

Question	Answers	
6. What category of explosives would normally be used for propellants?	A	Primary explosives
	B	Main charge
	C	Low explosives
	D	High explosives

Question	Answers	
7. How would you define a primary explosive? <i>An explosive which ...</i>	A	... is extremely sensitive to stimuli such as impact, friction, heat, static electricity or electromagnetic radiation
	B	... is used solely in detonators and primer caps
	C	...undergoes deflagration at rates up to 400 metres per second
	D	...requires an electrical charge to initiate it as it is used in fuzes and detonators

Question	Answers	
8. An 81mm Mortar round with an overall colour of Eau-de-nil (green) signifies what?	A	It is High Explosive (HE)
	B	It is a practice round
	C	It contains Low Explosive
	D	It is a smoke round

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Principle explosive types and their properties

Question	Answers	
9. Organic explosive compounds fall into three main classes, nitrate Esters, Nitro Aromatics and Nitramines. Which of the following statements describes their properties?	A	They contain their own oxygen to support decomposition reaction and provided with the right stimulus will detonate
	B	They contain their own primary explosive and provided with the right stimulus will deflagrate
	C	They contain their own oxygen and will always deflagrate
	D	They do not contain oxygen and are stable but provided with the right stimulus will detonate

Question	Answers	
10. Metal salts of organic molecules such as Lead Azide are commonly used as initiators. Which of the following statements is true?	A	They are safe to transport and handle when contained in primary packaging
	B	They are highly sensitive and will detonate readily with the slightest stimulus
	C	They are sensitive and will deflagrate on demand
	D	They are highly sensitive but will not detonate without a primary explosive

Question	Answers	
11. What are the main hazards from High Explosives?	A	Blast waves only
	B	Noise & ear damage
	C	Blast waves & fragments
	D	Shock & poisoning

Question	Answers	
12. The name given to mixtures of fuel and oxidant that may contain other ingredients such as a binder and which produce effects such as, heat, flame, light, noise, smoke and gas is?	A	High explosives
	B	Pyrotechnics
	C	Low explosives
	D	Primary explosives

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Question	Answers	
13. During disposal by open burning what effect could confinement have upon propellant?	A	Increase the burning velocity resulting in detonation
	B	Allow the charge to burn evenly
	C	Result in the propellant not burning
	D	Decrease the burning velocity resulting in a controlled burn

A general overview of the key legislative requirements

Question	Answers	
14. There is a considerable amount of legislation, which has a bearing on the management of explosives requiring disposal and/or destruction? Who is responsible for carrying out work safely and in accordance with laid down procedures?	A	The MOD representative
	B	The Head of Site at Shoeburyness
	C	The HSE
	D	Everyone

A general overview of Safety Management Systems

Question	Answers	
15. What is the function of a Safety Management System (SMS)? <i>To ensure all aspects of the work are ...</i>	A	... completed as per the schedule of works
	B	... conducted in a safe manner
	C	... conducted in accordance MOD advice
	D	... completed to financial targets

Question	Answers	
16. As part of the SMS all staff should be motivated and empowered to work safely, why is this?	A	To avoid accidents
	B	To protect their long term health, not simply to avoid accidents
	C	To ensure they comply with the HSE directive
	D	For productivity and job satisfaction

Question	Answers	
17. Premature, unwanted and unpredicted events could be caused by a range of events, which of the following is NOT a common source which could lead to fire and explosion?	A	Ignition by a donor charge
	B	impact
	C	friction
	D	Electrostatic discharge

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Question	Answers	
18. Premature, unwanted and unpredicted events could be caused by a range of events, which of the following is NOT a common issue which could lead to fire and explosion?	A	Inadequate supervision
	B	Inadequate procedures
	C	Lack of knowledge of the properties of explosive materials
	D	Inadequate time

General guidance on disposal of explosives

Question	Answers	
19. Scraping metal off surfaces could cause ignition of explosives by?	A	Impact
	B	Friction
	C	Heat
	D	Shock

Question	Answers	
20. Dismantling, including unbolting or unscrewing could cause ignition of explosives by?	A	Impact
	B	Friction
	C	Heat
	D	Static

Question	Answers	
21. The presence of grit will do what to explosives in relation to ignition by friction, make the explosive?	A	More sensitive
	B	Less sensitive
	C	Have no effect
	D	Help with the burning rate

Question	Answers	
22. Failure of a forklift carrying explosives, resulting in the forklift dropping the load could cause ignition of explosives by?	A	Impact
	B	Friction
	C	Heat
	D	Static

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Question	Answers	
23. Wearing nylon clothing when handling primary explosives could cause ignition of explosives by?	A	Impact
	B	Friction
	C	Heat
	D	Static

Question	Answers	
24. Using ferrous tools could cause ignition of explosives by?	A	Impact
	B	Friction
	C	Static
	D	Spark

Question	Answers	
25. What is a particular problem in relation to Acidic explosives such as NG or PETN?	A	Decomposition
	B	Friction
	C	Static
	D	Spark

Question	Answers	
26. What is a common source of electrometric radiation which could initiate electrically initiated explosives such as detonators?	A	Computers
	B	Mobile phones
	C	Car radios
	D	Digital cameras

Question	Answers	
27. What is key control in preventing unwanted initiations in explosives work?	A	Management inspections
	B	High standards of housekeeping
	C	Separation of explosive types
	D	PPE