TEST YOUR KNOWLEDGE
INSPECTION & TESTING



INSPECTION &TESTING

REVISION GUIDE BY LEWIS BLAKEMORE
Head of Construction at Wigan & Leigh College

Every electrician needs to stay on top of the standards, procedures and regs that apply to inspection and testing work.

Test your knowledge with these multiple-choice questions. Good luck!

Q1	Which regulation covers the periodic inspection and testing of electrical installations in the UK?	Ans.
A	BS 7671	
B	BS 1363	
C	BS 6290	
D	BS 5266	

Q2	What is the minimum insulation resistance value for a 230V circuit according to BS 7671?	Ans.
A	0.5 MΩ	
B	1 MΩ	
C	2 MΩ	
D	5 MΩ	

Q3	During an inspection, what is the maximum disconnection time for a TN system under fault conditions?	Ans.
A	0.2 seconds	
B	0.4 seconds	
C	1 seconds	
D	5 seconds	

Q4	What does the acronym 'RCD' stand for in electrical terms?	Ans.
A	Residual Current Device	
B	Radical Circuit Distributor	
C	Reactive Current Detector	
D	Resistive Circuit Device	

Q5	What is the primary purpose of performing a continuity test in an electrical installation?	Ans.
A	To check voltage levels	
B	To measure current flow	
C	To verify the integrity of the conductors	
D	To ensure proper earthing	

Q6	What instrument is typically used to measure earth fault loop impedance?	Ans.
A	Multimeter	
B	Oscilloscope	
C	Loop Tester	
D	Insulation Tester	

Q7	According to BS 7671, how often should a domestic electrical installation be inspected and tested?	Ans.
A	Every 5 years	
B	Every 10 years	
C	Every 15 years	
D	Every 20 years	

Q9	Which device protects against both overload and short-circuit conditions?	Ans.
A	RCD	
B	MCB	
C	RCCB	
D	RCBO	

Q8	What is the main reason for performing polarity tests on an electrical installation?	Ans.
A	To check the earth continuity	
B	To ensure correct connection of live conductors	
C	To measure insulation resistance	
D	To verify the presence of voltage	

Q10	In a TT system, what is the maximum permissible earth fault loop impedance (Zs) for a 30mA RCD?	Ans.
A	50 Ω	
B	1667 Ω	
C	200 Ω	
D	1000 Ω	

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EARTHING SYSTEMS



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EARTHING SYSTEMS

Understanding the different types of earthing systems is essential for anyone working in the electrical industry.



Test your knowledge with this multiple-choice quiz and see how well you know your TNs from your TTs.

Q1	Which of the following is a type of earthing system used in the UK?	Ans.
A	TT system	
B	TN-C-S system	
C	TN-S system	
D	All of the above	

Q2	In a TN-C-S earthing system, what does the 'C' stand for?	Ans.
A	Combined	
B	Circuit	
C	Common	
D	Connected	

Q3	What is the primary function of an earth electrode in a TT system?	Ans.
A	To protect against overvoltage	
B	To provide a path to earth	
C	To maintain voltage stability	
D	To regulate current flow	

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Q4	In a TN-S system, how is the neutral and earth connection configured?	Ans.
A	They are separate throughout the system	
B	They are combined throughout the system	
C	They are combined only at the substation	
D	They are interconnected at multiple points	

Q5	Which earthing system is considered to provide the best protection against electric shock?	Ans.
A	TT system	
B	TN-C-S system	
C	TN-S system	
D	IT system	

Q6	In a PME (Protective Multiple Earthing) system, what additional measure is taken?	Ans.
A	Multiple earth electrodes are used	
B	Earth and neutral are combined at multiple points	
C	Additional RCD protection is mandatory	
D	Earth rods are installed at every consumer unit	

Q7	What does the term "equipotential bonding" refer to in electrical earthing?	Ans.
A	Bonding all metallic parts to the earth	
B	Equalising the potential between different conductive parts	
C	Connecting all earth electrodes to a single point	
D	Bonding the live wire to earth	

Q8	Which test is commonly used to measure earth electrode resistance?	Ans.
A	Insulation resistance test	
B	Loop impedance test	
C	Earth fault loop impedance test	
D	Earth resistance test	

Q9	What is the main disadvantage of the TT earthing system?	Ans.
A	High installation cost	
B	High maintenance requirement	
C	Dependence on local earth resistance	
D	Complexity of design	

Q10	In which situation is the IT earthing system primarily used?	Ans.
A	Domestic installations	
B	Industrial plants with high safety requirements	
C	Outdoor lighting systems	
D	Residential multi-storey buildings	

Q11	In a TT earthing system, what is typically required to ensure safety?	Ans.
A	A transformer with an integrated earthing system	
B	A high-resistance path to earth	
C	A residual current device (RCD)	
D	A direct connection between neutral and earth	

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