

Electrotechnical Guide to Assessments and Permitted Materials

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This guide sets out all Electrotechnical assessments indicating component numbers, assessment times and permitted materials.

Non-programmable scientific calculators are permitted for all assessments but may not be necessary in some of the assessments.

Where permitted materials state 'any suitable resource material', permitted material are at the discretion of the assessor. Resources could include reference books, manufacturer's information or information from the internet.

Calculators and stationery

Non-programmable scientific calculators are permitted for **all** assessments but may not be necessary in some of the assessments. For written and externally marked assessments, it is strongly recommended that candidates use black or blue ball point pens for writing to avoid spoiling the paper. Other forms of pen can cause ink to spill through the paper spoiling scans of other pages. Candidates are allowed rulers, protractors and squares, as well as pencils and coloured pencils where questions may involve diagrams or graphics.

‘Any Suitable Resource Materials’

Where permitted materials state ‘any suitable resource material’, permitted materials are at the discretion of the assessor. Resources could include reference books, manufacturer’s information or information from the Internet.

Electronic copies

City & Guilds will permit candidates to use electronic copies of the materials within practical assessments. However, electronic copies of materials **cannot** be used in externally marked assessments (evolve tests/written exams). If a candidate only has an electronic copy of the materials, centres must provide the candidate with a paper-based copy that meets the below criteria.

Examinations allowing publications

Where BS 7671, IET On-Site Guide and other IET Guidance Notes are permitted, books **must not** contain additional notes or pages within the publications, further clarification of this guidance is given in the lists below. The lists below details what is and is not deemed to be acceptable.

What is permitted in these publications;

- corrigenda published by IET or BSI
- amendments which have been published by IET or BSI as additional pages instead of a publication re-print
- stick-on paper used as page referencing
- highlighting text within the publication
- very shorthand-written descriptors of BS or regulation numbers which cross-reference a feature elsewhere in the publication (see example 1 below).

Example 1 – What is acceptable

30mA max

'...shall be provided with additional protection by means of an RCD having the characteristics specified in Regulation 415. 1.'

What is **not** permitted in these publications;

- additional personal note pages
- additional formula (printed or handwritten)
- additional printed pages (with exception of those listed above)
- handwritten procedures
- handwritten descriptors of regulations/text which do not feature elsewhere in the publication.

Currency of permitted publications

Unless specifically specified, due to regular changes in regulations, current versions of BS 7671 should always be used, where permitted. This includes the most up to date versions of other permitted related materials, such as the IET On-Site Guide, where permitted.

Permitted publications with published errors

Where publications have known errors and before any corrigendum is published, corrections to errors may be made.

Apprenticeship / Full time Qualifications

Table 1A: 5357-03 and 5357-23 Electrotech apprenticeship qualification

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Health & Safety	101	Practical	7 hours	Closed book
	001	E-volve on-line MCQ test	40 minutes	Closed book
Scientific Principles	103	Short answer, written question paper	120 minutes	Closed book
		Practical	45 minutes	
	003	E-volve on-line MCQ test	90 minutes	Closed book
Design	104	Project	20 hours guided	Any relevant resource
	004	E-volve on-line MCQ test	70 minutes	IET On-Site Guide; BS 7671 (see note 1)
Plan and Oversee	105	Project	No time constraint	Any relevant resource
	505	E-volve on-line MCQ test	40 minutes	Closed book
Terminations and connections	107	Practical	10 hours	Any relevant resource
Inspection & Testing	112/312	Practical	3 hours	Any relevant resource
		Short answer, written question paper	2 hours	Closed book
	012/212	E-volve on-line MCQ test	80 minutes	Closed book
Fault diagnosis	114	Practical	3 hours	Any relevant resource
	014	E-volve on-line MCQ test	60 minutes	Closed book
Requirements of BS 7671	022	E-volve on-line MCQ test	120 minutes	BS 7671

Notes;

1. For 5357-004, candidates will not be disadvantaged if they do not have a copy of BS 7671 for this assessment, but all candidates must have a copy of the IET On-Site Guide.

Table 1B: 2357 Electro Technical Technology

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Health & Safety	601	Assignment	No time constraint	Any relevant resource
	301	E-volve on-line MCQ test	40 minutes	Closed book
Environmental technologies	602	Assignment	No time constraint	Any relevant resource
	102	E-volve on-line MCQ test	70 minutes	Closed book
Organise & Oversee	603	Project	No time constraint	Any relevant resource
		Short answer, written question paper	60 minutes	Closed book
Electrical Design	604	Project	No time constraint	Any relevant resource
		Short answer, written question paper	150 minutes (2.5 hours)	BS 7671; IET On-Site Guide
Electrical Installations to BS 7671	705/725	Assignment	No time constraints	Any relevant resource
		Short answer, written question paper (705 only)	60 minutes	Closed book
	305	E-volve on-line MCQ test	45 minutes	BS 7671
	022 (18 th Edition Test)	E-volve on-line MCQ test	120 minutes	BS 7671
Terminations	606	Practical	5 hours	Any relevant resource
Inspection & Testing	107	E-volve on-line MCQ test	80 minutes	Closed book
	607	Short answer, written question paper	2 hours	Closed book
		Practical	5 hours	Any relevant resource
Fault diagnosis	608	Short answer, written question paper	No time constraint	Any relevant resource
		Practical	3 hours	Any relevant resources
Scientific Principles	309	E-volve on-line MCQ test	60 minutes	Closed book
	609	2 Short answer, written question papers	60 minutes per paper	Closed book

Table 1C: Level 2 2365 Electrotechnical Craft

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Health & Safety	211	Practical	7 hours total	Closed book
	601	E-volve on-line MCQ test	40 minutes	Closed book
Fundamental Science	602	E-volve on-line MCQ test	90 minutes	Closed book
Electrical Technology	203	E-volve on-line MCQ test	75 minutes	IET On-Site Guide
Installation	204	Practical assignment	8 hours	Any relevant resource
Communications	210	E-volve on-line MCQ test	40 minutes	Closed book

Table 1D: Level 3 2365 Electrotechnical Craft

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Environmental Technology	301	E-volve on-line MCQ test	75 minutes	Closed book
Advanced science	612	Short answer, written question paper	120 minutes	Closed book
		Practical	45 minutes	
Fault diagnosis	623	E-volve on-line MCQ test	60 minutes	Closed book
	613	Practical	3 hours	Any relevant resource
Inspection & Testing	614	Practical	3 hours	Any relevant resource
		Short answer, written question paper	2 hours	Closed book
	624	40 item E-volve on-line MCQ test	80 minutes	Closed book
Electrical Design	625	30 item E-volve on-line MCQ test	70 minutes	IET On-Site Guide; BS 7671
	615	Project	No time constraint	Any relevant resource
Career awareness	308	Short answer, written question paper	No time constraint	Closed book
		Project	No time constraint	Any relevant resource

Table 1D: 8202 Technicals in Building Services Engineering

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Level 2 Theory Test	020/520	MC test either on E-volve (on-line) or paper	120 minutes	BS 7671; IET On-Site Guide
Level 2 Synoptic Assignment	021	Synoptic assignment	Subject to assignment version	Any relevant resource
Level 3 Theory Test	531	Externally marked, written paper	150 minutes (2.5 hours)	BS 7671; IET On-Site Guide
Level 3 Synoptic Assignment	032	Synoptic assignment	Subject to assignment version	Any relevant resource

Table 1E: 5393 Electrotechnical in Dwellings (apprenticeship)

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Health & Safety	101	Practical	See pack for individual timings	Closed book
	001	E-volve on-line MCQ test	40 minutes	Closed book
Scientific Principles	103	Short answer, written question paper	120 minutes	Closed book
	003	E-volve on-line MCQ test	90 minutes	Closed book
Design	104	Project	20 hours guided	Any relevant resource
	004	E-volve on-line MCQ test	90 minutes	IET On-Site Guide; IET Electrician's Guide to the Building Regulations.
	204	Practical	See pack for timings	Any relevant resource
Plan and Oversee	105	Project	No time constraint	Any relevant resource
Inspection & Testing	012	E-volve on-line MCQ test	90 minutes	Closed book
	112	Practical	See pack for timings	Any relevant resource
Fault diagnosis and rectification	014	E-volve on-line MCQ test	60 minutes	Closed book
	114	Practical	3 hours	Any relevant resource
Requirements of BS 7671	022	E-volve on-line MCQ test	120 minutes	BS 7671

CPD qualifications

Table 2A: 2391 Electrical Inspection and Testing

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Initial Verification	050	E-volve on-line MCQ test	90 minutes	BS 7671, IET On-Site Guide; IET GN3
	500	Practical (Task A)	150 minutes (2 hours 30 minutes)	BS 7671, IET On-Site Guide; IET GN3 (for confirming test results only)
	500	Short answer written paper (Task B)	60 minutes	BS 7671, IET On-Site Guide; IET GN3
Periodic Inspection & Test	051	E-volve on-line MCQ test	90 minutes	BS 7671, IET On-Site Guide; IET GN3
	501	Visual inspection of an electrical installation (Task A)	30 minutes	No reference materials permitted
	501	Practical (Task B)	150 minutes (2 hours 30 minutes)	For confirming test results only : BS 7671 IET On-Site Guide IET GN3
	501	Short answer written paper (Task C)	60 minutes	BS 7671, IET On-Site Guide; IET GN3

Combined Inspection & Test	052	E-volve on-line MCQ test	120 minutes	BS 7671, IET On-Site Guide; IET GN3
	502	Visual inspection of an electrical installation (Task A)	30 minutes	No reference materials permitted
	502	Practical (Task B)	150 minutes (2 hours 30 minutes)	For confirming test results only : BS 7671 IET On-Site Guide IET GN3
	502	Short answer written paper (Task C)	80 minutes (1 hour 20 minutes)	BS 7671, IET On-Site Guide; IET GN3

Table 2B: 2382 Requirements for Electrical Installations

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Requirements of BS 7671	622	60 item E-volve on-line MCQ test	120 minutes	BS 7671

Table 2B: 2396 Design, Erection and Verification

Subject	Assessment number	Assessment type	Assessment time	Permitted materials
Design & Management of Electrical Installations	401	Project	40 hours	Any relevant resource
	402	10 item written paper	3 hours	BS 7671, IET On-Site Guide; IET GN3

Table 2C: Other CPD Qualifications

Qualification	Subject	Assessment number	Assessment type	Assessment time	Permitted materials
2392	Fundamental Inspection & Testing	101	50 item E-volve on-line MCQ test	100 minutes	Closed book
		102	Practical assessment	2 hours	BS 7671; IET On-Site Guide; IET GN3
2393	Building Regulations	101	20 item E-volve on-line MCQ test	40 minutes	IET Guide to the building Regulations
2377	In-service inspection and testing of electrical equipment	701	50 item E-volve on-line MCQ test	1 hour 45 mins	IET code of practice In-service inspection and testing of electrical equipment (PAT)
2921-31	Design and Installation of Domestic and Small Commercial Electric Vehicle Charging Installations	301	Short-answer and scenario based questions	See assessment pack for details	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice: Electric Vehicle Charging Equipment Installation, IET On-Site Guide.
		601	28 item E-volve on-line MCQ test	45 minutes	IET Code of Practice for Electric Vehicle Charging Equipment Installation
2921-32	Design and Quality Assurance of Largescale Electric Vehicle	302	Short-answer and scenario-based questions	See assessment pack for details	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice: Electric

	Charging Installations				Vehicle Charging Equipment Installation, IET Electric Vehicle Charging Installations at Filling Stations.
		304	Project	See assessment pack for details	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice for Electric Vehicle Charging Equipment Installation (and IET/APEA supplement).
2921-33	Installation and maintenance of largescale electric vehicle charging installations	303	24 item written paper	See assessment pack for details	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice for Electric Vehicle Charging Equipment Installation, IET Electric Vehicle Charging Installations at Filling Stations
2921-34	Requirements for the Design and Installation of Domestic and Small Commercial Electric Vehicle Charging Installations	305	30 item E-volve on-line MCQ test	1 hour	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice: Electric Vehicle Charging Equipment Installation

2922-34	Installation and Maintenance of Small Solar Photovoltaic Systems	301	30 item E-volve on-line MCQ test	1 hour	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice: Grid-connected Solar Photovoltaic Systems
2923-34	Design, Installation and Commissioning of Small Electrical Energy Storage Systems	301	30 item E-volve on-line MCQ test	1 hour	BS 7671 Requirements for Electrical Installations (IET Wiring Regulations), IET Code of Practice: Electrical Energy Storage Systems