

CORE OBJECTIVES (BSS)

1. Building Services Engineering Fundamental	Code	ES Initials & Date of Assessment			
		G	K	E	C
1.1 Properties of Materials for Building Services Components:- <ul style="list-style-type: none"> - Types - Material Specification - Use - Special Treatment (e.g. Heat) - Surface Coating/Finishes - Shield Against EMI 	*C/E				
1.2 Materials Shaping forming and assembly for <ul style="list-style-type: none"> - Ducts - Panels - Pipes - Conduits Trunkings and Cable Trays <p>Knowledge of Use of Hand/Power Tools and Computer Aided Machines</p>	*E/K				
1.3 Anchoring Fixing and Support <ul style="list-style-type: none"> - Resilient Mounting - Mechanical and Non-mechanical Fixing and Anchoring - Guides and supports for pipes - Allowance for Thermal and Building Expansion - Acoustic Consideration - Protection Against Electrical Shock, Stray Current, etc. - Anti-Corrosion (and Galvanic Actions) - Testing (e.g. Pull-out Test) <p>Knowledge of Use of Hand/Power Tools and Computer Aided Machines</p>	*C/E				
<i>* As appropriate to the company</i>					

CORE OBJECTIVES (BSS)

1. Building Services Engineering Fundamental	Code	ES Initials & Date of Assessment			
		G	K	E	C
1.4 Fixing and Jointing <ul style="list-style-type: none"> - Cable Joints - Pipes Fitting and Joints - Panels Fastening and Seals - Sheet Metal Ducts and Joints and Seals - Anti-corrosion (and Galvanic Actions) - Vibration and Noise Isolation - Protection Against Electric Shock, Stray Current, Thermal- Weld, etc. - LV/ELV installation/segregation <p>Knowledge of Use of Hand/Power Tools and Computer Aided Machines</p>	*C/E				
1.5 System and Equipment Products <ul style="list-style-type: none"> - Application of System - Standard for Manufacturer - Standard for Performance Rating - Standard for Materials - Specification 	*C/E				

** As appropriate to the company*

CORE OBJECTIVES (BSS)

2. Engineering Design	Code	ES Initials & Date of Assessment			
		G	K	E	C
2.1 Design Office Practice <ul style="list-style-type: none"> - Stages of Design - Information Retrieval - Use of Computer Packages - Codes of Practice - Specifications & Standards - Design Appreciation 	*C/E				
2.2 Computer Aided Design (CAD)	*C/E				
2.3 Design Aspects <ul style="list-style-type: none"> - Types, Selection and Application of Various Systems and Required Equipment - Energy Efficiency and Energy Conservation Measures - Environmental Impacts - Initial & Running Cost Estimates - Customer Requirements - Specifications - Statutory Requirements - Utilities Planning - Spatial Requirements - Buildability - Maintainability - Alternative Solutions 	*C/E				
<i>* As appropriate to the company</i>					

CORE OBJECTIVES (BSS)

3. Operational Reliability	Code	ES initials and Date of Assessment			
		G	K	E	C
3.1 Automation <ul style="list-style-type: none"> - Automatic Control System & Units - Computer Aided Manufacture / Control 	*C/E				
3.2 Installation Testing & Commissioning <ul style="list-style-type: none"> - Procedures - Preparation - Testing/Setting to work - Guarantees & Defects 	*C/E				
3.3 Instrumentation <ul style="list-style-type: none"> - Selection - Range and Accuracy - Performance Monitoring - Calibration 	*C/E				
3.4 Quality Procedures <ul style="list-style-type: none"> - Quality Management System - International Standards - Quality Control/Quality Assurance Procedures 	*C/E				
3.5 Maintenance <ul style="list-style-type: none"> - Planning and Implementation of Maintenance Programmes for Reliability and Maintainability - Types of Maintenance System - Computer Aided Maintenance Management - Preventive Maintenance - Emergency and Major Repair - Diagnostic Techniques 	*C/E				
3.6 Operation <ul style="list-style-type: none"> - Procedures - Supervision/Management - Indoor Environmental Assessment - Energy Efficiency Monitoring and Energy Conservation Measures 	*C/E				
<i>*As appropriate to the company</i>					

CORE OBJECTIVES (BSS)

4. Engineering Administration & Management	Code	ES Initials & Date of Assessment			
		G	K	E	C
4.1 Interpretation, preparation and communication of requirements, specifications and drawings.	C				
4.2 Materials/equipment procurement procedures, tender and or contract appraisal and administration.	C				
4.3 Planning, Budgeting.	*C/E				
4.4 Estimating labour, materials, installation and transport costs.	*C/E				
4.5 Project/Work scheduling and management Information Services.	C				
4.6 Reports & Presentations - written reports - oral presentation	C				
* <i>As appropriate to the company</i>					