

List of Tables

Title	Page no.
Chapter - 2 : Literature review	6
Table 2.1 – Human activity and generation of static charge (in voltage)	8
Table 2.2 – RF wave producing devices & frequency range	19
Table 2.3 – RF wave depth of penetration in muscle, skin and other tissues	19
Table 2.4 – Particulate shed by humans during a range of activities	24
Table 2.5 – Types of cleanroom	24
Table 2.6 – ISO 14644-1 Cleanroom standards	26
Table 2.7 – Possible cleanroom requirements for various tasks	26
Table 2.8 – BS 5295 Cleanroom standards	26
Table 2.9 – The Federal standard FS 209D	27
Chapter – 3 : Experimental	39
Table 3.1 – Conductive yarn samples	40
Table 3.2 – Pure metal wire incorporated cotton conductive fabric samples	43
Table 3.3 – Metal blended yarn incorporated cotton conductive fabric samples	43
Table 3.4 – Metal blended yarn incorporated polyester conductive fabric samples	44
Table 3.5 – Metal plated yarn incorporated cotton conductive fabric samples	44
Table 3.6 – Metal plated yarn incorporated polyester conductive fabric samples	44
Table 3.7 – Metal jari incorporated cotton conductive fabric samples	44
Table 3.8 – Carbon jari incorporated cotton conductive fabric samples	44
Table 3.9 – Carbon jari incorporated cotton conductive fabric samples (water repellent)	45
Table 3.10 – Metal jari & carbon jari incorporated polyester conductive fabric samples	45
Table 3.11 – Carbon yarn incorporated polyester conductive fabric samples (stripe & grid)	45
Chapter – 4 : Results & discussions	52
Table 4.1 – Pure metal wire incorporated cotton conductive fabric samples	54

Table 4.2 – Metal blended yarn incorporated cotton & polyester conductive fabric samples	54
Table 4.3 – Metal jari incorporated cotton & polyester conductive fabric samples	55
Table 4.4 – Pure metal wire incorporated cotton conductive fabric samples	56
Table 4.5 – Carbon jari incorporated cotton conductive fabric samples	56
Table 4.6 – Metal plated yarn incorporated cotton conductive fabric samples	57
Table 4.7 – Denier & surface resistivity	58
Table 4.8 – Metal blended yarn incorporated cotton conductive fabric samples	59
Table 4.9 – Metal jari incorporated cotton conductive fabric samples	60
Table 4.10 – Metal blended yarn incorporated polyester conductive fabric samples	60
Table 4.11 – Metal plated yarn incorporated polyester conductive fabric samples	61
Table 4.12 – Weft space & surface resistivity	62
Table 4.13 – Carbon jari incorporated cotton conductive fabric samples	63
Table 4.14 – Carbon yarn incorporated polyester conductive fabric samples (stripe & grid)	64
Table 4.15 – Pure metal wire incorporated cotton conductive fabric samples	65
Table 4.16 – Metal blended yarn incorporated cotton & polyester conductive fabric samples	65
Table 4.17 – Metal jari incorporated cotton & polyester conductive fabric samples	66
Table 4.18 – Pure metal wire incorporated cotton conductive fabric samples	66
Table 4.19 – Carbon jari incorporated cotton conductive fabric samples	67
Table 4.20 – Metal plated yarn incorporated cotton conductive fabric samples	67
Table 4.21 – Denier & field strength	68
Table 4.22 – Metal blended yarn incorporated cotton conductive fabric samples	69
Table 4.23 – Metal jari incorporated cotton conductive fabric samples	70
Table 4.24 – Metal blended yarn incorporated polyester conductive fabric samples	71
Table 4.25 – Metal plated yarn incorporated polyester conductive fabric samples	71
Table 4.26 – Weft space & field strength	72
Table 4.27 – Carbon jari incorporated cotton conductive fabric samples	73
Table 4.28 – Carbon yarn incorporated polyester conductive fabric samples (stripe & grid)	74
Table 4.29 – Pure metal wire incorporated cotton conductive fabric samples	75

Table 4.30 – Metal blended yarn incorporated cotton & polyester conductive fabric samples	75
Table 4.31 – Metal jari incorporated cotton & polyester conductive fabric samples	76
Table 4.32 – Pure metal wire incorporated cotton conductive fabric samples	77
Table 4.33 – Carbon jari incorporated cotton conductive fabric samples	77
Table 4.34 – Metal blended yarn incorporated cotton conductive fabric samples	78
Table 4.35 – Metal blended yarn incorporated polyester conductive fabric samples	78
Table 4.36 – Metal plated yarn incorporated polyester conductive fabric samples	79
Table 4.37 – Weft space & air permeability	80
Table 4.38 – Carbon jari incorporated cotton conductive fabric samples	81
Table 4.39 – Carbon yarn incorporated polyester conductive fabric samples (stripe & grid)	81
Table 4.40 – Pure metal wire incorporated cotton conductive fabric samples	83
Table 4.41 – Metal blended yarn incorporated cotton & polyester conductive fabric samples	84
Table 4.42 – Metal jari incorporated cotton & polyester conductive fabric samples	85
Table 4.43 – Pure metal wire incorporated cotton conductive fabric samples	86
Table 4.44 – Carbon jari incorporated cotton conductive fabric samples	87
Table 4.45 – Metal blended yarn incorporated cotton conductive fabric samples	88
Table 4.46 – Metal blended yarn incorporated polyester conductive fabric samples	89
Table 4.47 – Metal plated yarn incorporated polyester conductive fabric samples	90
Table 4.48 – Weft space & fabric particle density transfer rate	91
Table 4.49 – Carbon jari incorporated cotton conductive fabric samples	92
Table 4.50 – Carbon yarn incorporated polyester conductive fabric samples (stripe & grid)	93
Appendices	112
Denier	113
Stress-Strain	113