AMTE-26 CLOTHING COMFORT

UNIT-1 COMFORT

1.1 Types and definition; human clothing system;
1.2 Psychology and comfort - perception of comfort,
1.3 Psychological research techniques,
1.4 Comfort sensory descriptors, psychophysics, scales of measurement,
1.5 Scales to measure direct responses, wear trial technique, comfort perception and preferences.

UNIT-2 THERMO PHYSIOLOGICAL COMFORT

2.1 Clothing and thermal comfort; Thermal comfort-
2.2 Thermoregulatory mechanisms of the human body,
2.3 Two-node model of thermal regulation,
2.4 Dynamic thermal interaction between the body and clothing,
2.5 Role of clothing on thermal regulations.

UNIT-3 HEAT AND MOISTURE TRANSFER

3.1 Wearer's temperature regulations,
3.2 Effect of physical properties of FIBREs,
3.3 Behavior of different types of fabrics,
3.4 Dynamic heat and moisture transfer in fabric,
3.5 Moisture exchange between FIBRE and air, boundary conditions, method of solution,
3.6 Moisture sorption of wool fabrics, and behavior of fabrics made from different FIBREs.

UNIT-4 PSYCHOLOGICAL COMFORT

4.1 Transient temperature and moisture sensations,
4.2 Coolness to the touch, warmth, dampness,
4.3 Clamminess and moisture buffering during exercise, environmental buffering;
4.4 Neuro physiological comfort - basis of sensory perceptions;
4.5 Measurement techniques - mechanical stimuli and thermal stimuli.

UNIT-5 FABRIC TACTILE AND MECHANICAL PROPERTIES

5.1 fabric prickliness, itchiness, stiffness, softness, smoothness, roughness, and scratchiness;
5.2 Garment fit and pressure comfort;
5.3 Predictability of clothing comfort performance
5.4 Prediction of fabric hand, prediction of clothing thermophysiological comfort,
5.5 Predictability of sensory comfort,
5.6 Predictability of subjective preferences;
5.7 Application of clothing comfort research.

Reference Books:

1. R.M.Laing, G.G. Sleivert, "Clothing, Textile and Human Performance, Textile Progress, 32:2