AMTE-11 TECHNOLOGY OF YARN SPINNING

UNIT-1 RING SPINNING

1.1 Principle of yarn formation in ring spinning machines;
1.2 Working of ring spinning machine;
1.3 Cop building;
1.4 Design features of important elements used in ring spinning machine;
1.5 Draft, twist and production calculations in ring spinning machine;
1.6 End breakage rate
1.7 Causes and remedies

UNIT-2 CONDENSED YARN SPINNING

2.1 Condensed yarn spinning
2.2 Principle, different methods, properties;
2.3 Comparison with ring spun yarn

UNIT-3 YARN PLYING

3.1 Merits of plying of yarns;
3.2 Methods followed for plying
3.3 TFO, ring twisting; selection of twist level for plying;
3.4 Calculation of resultant count of plied yarns;
3.5 Types of fancy yarns, method of production

UNIT-4 ROTOR SPINNING

4.1 Principle of open end spinning;
4.2 Principle of yarn production by rotor spinning system;
4.3 Design features of important elements used in rotor spinning;
4.4 Properties of rotor yarn

UNIT-5 OTHER SPINNING SYSTEMS

5.1 Friction and air-jet spinning methods
5.2 Principle of yarn production,
5.3 Raw material used, structure,
5.4 Properties and applications;
5.5 Principle of yarn production by self-twist, core, wrap,
5.6 Integrated compound spinning systems.

References Books:

1. Lord P.R., "Yarn Production: Science, Technology and Economics", The Textile Institute, Manchester, 1999
2. Shaw J., "Short-staple Ring Spinning, Textile Progress", The Textile Institute, Manchester, 1982
3. Iredale J., "Yarn Preparation: A Handbook ", Intermediate Technology, 1992